

## THE SPIDER FAUNA OF THE UPPER CAYUGA LAKE BASIN.

BY NATHAN BANKS.

In the list given below are contained all the species of spiders known to occur in or near Ithaca. The region examined has no exact limits. It may best be defined as the Upper Cayuga Lake Basin. It embraces the country drained by the streams which flow into the head of the Cayuga Lake. The shores of the Lake have been examined only for a short distance: on the west side for ten miles to Traghanic; on the east about four miles to Burdick's Glen. A large share of the collecting has been done in the beds of the gorges and in the swamps. Of these, those most carefully examined are as follows: of the gorges, Fall, Cascadilla, Six Mile and Buttermilk Creek; of the swamps, Inlet Marsh, Beebe Island and South Hill Marsh. Collecting in the other localities has not been so thorough. The collecting began in the spring of 1888 and has lasted about two years. From these facts it may be seen that the list is not at all complete.

The collecting has been done chiefly by myself although others have occasionally given me specimens. To them I am deeply indebted, both for the specimens and for the encouragement they have shown me. Those who have especially aided me are Mr. G. Van Ingen, Mr. H. Hicks, Mr. A. D. MacGillivray, Mr. H. W. Norris and Mr. Brace.

To Prof. L. M. Underwood, of Syracuse University, I am under the deepest of obligations. Were it not that he kindly lent me much literature on the subject, this paper could not have been written. To the Rev. Dr. H. C. McCook, of Philadelphia, I wish to express my thanks for the work done upon the Epeiridæ. To J. H. Emerton I am deeply indebted for much help in determining several species, and to Prof. J. H. Comstock, under whose direction the paper has been written, for much kindly assistance and encouragement.

The country is very diversified, low lands and high hills, marshes, creeks forming beautiful gorges, bare rocky cliffs and mud-bottoms. The climate is as varied as the country. These facts, with its flora and insect fauna, account for the large number of spiders. Diversity of country is of course more favorable to ground spiders than to web-building ones; so it will be noticed that the pro-

portion is greater in the Lycosidæ than in the Epeiridæ when compared with the New England fauna.

Several bibliographies of American spiders are easily accessible. The American Naturalist for November, 1887, contains a quite complete one by Prof. Underwood. Bulletin No. 19 of the U. S. Department of Agriculture also contains a list of the more important works. Many of the early descriptions are worthless and may never be identified. I have not thought Walckenaer's names worth using. Some of Hentz's species will probably never be determined. Some later writers have occasionally been careless in describing species.

The list here submitted will compare favorably with others, as may be seen by the following:—

Cayuga Lake, by Banks, (1890)	363	species
Great Britain, by Cambridge, (1874)	457	"
Sweden, by Westring,	308	"
Italy,	404	"
France, by Simon, (1874) about,	1000	"
Austria, by Doleschal, (1867)	205	"
Prussia, by Ohlert, (1867)	188	"
Tyrol, (1867)	233	"
Vicinity of Prague, by Prach, (1866)	119	"
Spiders of Trent, by Canestrini, (1875)	243	"
Catalogue of Spiders of Switzerland, by Pavesi, (1875)	285	"
Spiders of Westphalia, by Karsch, (1874)	154	"
South Russian Spiders, by Thorell, (1875)	303	"

Emerton has published lists of the New England forms of seven families; they compare with the Ithaca fauna as follows:—

	New England.	Ithaca.
Lycosidæ,	33 species.	42 species.
Epeiridæ,	51 "	43 "
Therididæ,	137 "	124 "
Ciniflonidæ,	16 "	14 "
Drassidæ,	34 "	43 "
Agalenidæ,	11 "	17 "
Dysderidæ,	2 "	0 "

It will be seen from these comparisons that the vicinity of Ithaca is a very fertile locality for spiders.

Classification is only possible when many links are lost. Among the spiders as they exist in this locality certain groups are quite definite, while others are closely related. The Lycosidæ and Attidæ are distinct both from each other and from the other families. The Thomisidæ are also easily separated. The Epeiridæ and Therididæ can be separated, yet *Meta* is almost as

near to one as to the other. But the Drassidæ, Agalenidæ and Ciniflonidæ are very closely related to each other and to the Therididæ. I have not thought the Ciniflonidæ a group of sufficient distinctness to be recognized as a family. The existence of a calamistrum and cribellum in *Hypochilus thorelli* shows that this character does not indicate close relationship. And besides, the Ciniflonidæ comprises two well-defined sub-families, one of which may be near the Epeiridæ and the other is very close to the Agalenidæ. So I have divided the Ciniflonidæ and placed them in these two families.

Still it may sometimes be necessary to use artificial characters for a division. I have separated the Drassidæ and Agalenidæ according by the number of tarsal claws. Some species which have been classed as Agalenidæ may, by the division, fall into the Drassidæ; yet the two families are so closely related that such forms will not mar, to any great extent, the similiarity of structure of the Drassidæ.

The Attidæ appear to be very high if not the highest. The Drassidæ, I think, are the lowest. The Epeiridæ were probably developed from the Therididæ, the Therididæ from the Agalenidæ and these from the Drassidæ.

As I have not had access to several important European works, the sequence of genera adopted is merely provisional, and I have not felt at liberty to introduce changes in classification. Not all the material obtained has been described; this is especially the case with certain young forms, which have been left with the hope of getting the adult stage.

## KEY TO FAMILIES.

- |  |               |
|--|---------------|
| 1. Lung slits four, or two lung slits and two spiracles just behind them,  | 2             |
| Lung slits two, the spiracles not just behind them; mandibles articulated vertically,  | 4             |
| 2. Eyes eight,   | 3             |
| Eyes six,  | DYSDERID.E.   |
| 3. With extra spinning organs,   | HYPOCHILID.E. |
| Without extra spinning organs,   | MYGALID.E.    |
| 4. Eyes equal or subequal, in two rows,  | 6             |
| Eyes eight, unequal, in three or four rows,  | 5             |
| 5. Eyes in three or four rows; if three rows, two middle of first row largest, second row smallest; if four rows, first row largest, third row smallest, | ATTID.E.      |
| Eyes in three or four rows, first row of four or two small eyes, second or third row of large eyes,  | LYCOSID.E.    |

- |    |  |            |
|----|--|------------|
| 6. | Tarsi with two claws, no web,  | 7          |
|    | Tarsi with three claws, usually a web,   | 8          |
| 7. | Second pair of legs as long or longer than the fourth, all eyes diurnal,   | THOMISIDÆ. |
|    | Second pair of legs not so long as fourth, only anterior M. E. diurnal,  | DRASSIDÆ.  |
| 8. | Hind spinnerets longer than others and of two joints <sup>1</sup> ; or else extra spinning organs and anterior eyes equal and the front S. E. colorless, Hind spinnerets of but one joint; when extra spinning organs are present then front S. E. are smaller than front M. E. and dark in color, | AGALENIDÆ. |
| 9. | Inner angle of maxillæ rounded, else with extra spinning organs, with an orb web,  | EPEIRIDÆ.  |
|    | Inner angle of maxillæ not rounded, with an irregular web,   | THERIDIDÆ. |

#### DRASSIDÆ.

*Micaria longipes* Em.

Rare. Heustis St. and Fall Creek; Aug.

*Micaria formicoides*, nov. sp. Plate I, fig. 51.

Total length,	♀	4.9mm.
Length of cephalothorax	2 mm.	breadth 1 mm.
Length of abdomen	2.9 mm.	breadth 1.5mm.
Length of sternum	1.05mm.	breadth .7mm.
Length of femur I	1.2 mm.	tibia I 1 mm.
Length of femur IV	1.7 mm.	tibia IV 1.3mm.

Cephalothorax dark yellow-brown, with a large V-shaped mark at end of cephalic portion; behind this the thoracic part is veined with golden metallic scales. Cephalic part darker, near eyes covered with iridescent scales; hair brownish. Mandibles yellow-red-brown, lighter at apex; basal joints of palpi similar, distal joints light yellow; mouth parts and sternum red-brown with scattered long white hairs. Coxæ light yellow-brown, hind ones lightest; trochanter similar but with a dark stripe before and behind. Femora I and II yellow-brown, darkest at base; other joints light yellow with scattered white hairs and many brown scale-like spines. Coxæ III and IV with a patch of white scales above; femora red-brown, other joints lighter. Femur III with three stripes of white scales one above, one in front, and one behind; femur IV with one white stripe above; patella and tibia III and IV with a white stripe of scales above. Abdomen dark, covered with iridescent scales above and below; near base a broadly interrupted band of white,

<sup>1</sup>This point is difficult to see in *Cybaeus*.

behind this the scales are somewhat golden or dark brown according to the light. Near the middle of the abdomen there is on each side a patch of white, behind this the scales are dark-brown or golden according to the light. The apical third of abdomen is black or nearly colorless according to the light. Sides are golden or brown, with a white oblique band at constriction of abdomen. Venter with bright colored scales, in certain light the basal ones are reddish-purple, the apical ones golden. Hairs long, dark, scattered. Epigynum reddish, spinnerets dark red-brown. Cephalothorax highest in middle; sternum sharp-pointed behind, rounded in front, widest at second coxæ. Abdomen with a deep transverse furrow somewhat in front of middle, and which does not intersect the upper side margin; a slight constriction in the sides at the same points; epigynum as figured.

Rare. 14th Sept. Fall Creek on *Solidago* with reddish ants of same size, which it greatly resembles.

**Thargalia agilis**, nov. sp. Plate I, fig. 52 and 52a.

Total length	♀		9.4mm.
Length of cephalothorax	3.6mm.	breadth	2.5mm.
Length of abdomen	6 mm.	breadth	3.6mm.
Length of sternum	1.9mm.	breadth	1.3mm.
Length of femur I	2.7mm.	tibia I	2 mm.
Length of femur IV	3 mm.	tibia IV	2.7mm.

Cephalothorax jet black with a few white plumose hairs; mandibles dark reddish-brown; sternum brownish-black; labium and maxillæ reddish-brown, whitish at tips; palpi reddish-brown; all coxæ reddish-brown; all femora darker brown; other joints of first and second pairs of legs light yellow-brown; other joints of hind two pairs as dark as the femora, except the tarsi which are lighter. Abdomen black, shining, with scattered whitish plumose hairs, more reddish beneath with hairs more numerous and less plumose; spinnerets dark. Cephalothorax not much higher in middle than in front; rounded in front and behind; upper row of eyes procurved; lower row nearly straight; M. E. of upper row nearer S. E. than each other; same with lower M. E.; quadrangle of M. E. higher than broad; maxillæ convex; labium  $\frac{1}{2}$  length of maxillæ; epigynum as figured; no spine on front side of fourth hind patellæ.

Not uncommon. Six Mile Creek.

**Thargalia perplexa**, nov. sp. Plate I, figs. 53, 53a, and 53b.

Total length	♀		8 mm.
Length of cephalothorax	3.3mm.	breadth	2.3mm.

Length of abdomen	4.6mm.	breadth	2.9mm.
Length of sternum	1.8mm.	breadth	1.2mm.
Length of femur I	2.1mm.	tibia I	1.8mm.
Length of femur IV	3. mm.	tibia IV	2.4mm.

Cephalothorax uniform reddish-brown with a few scattered white plumose hairs; mandibles more reddish; mouth parts light reddish-brown, whitish at tips, sternum similar to mandibles; coxæ yellow-brown, first pair darkest; palpi brown at base, yellowish towards apex; all femora red-brown, those of III and IV with some whitish hairs; other joints of I and II light; the tibia a little greenish, tarsus a little brownish; tibiæ and patellæ III and IV similar to femora, tibia a little lighter at extreme tip; metatarsus darker; tarsus lighter. Abdomen red-brown, with many plumose hairs, usually black, but two spots and a band at base white, also some white scattered over middle of dorsum, and an apical band white; venter red-brown with black hairs not plumose; spinnerets red-brown; epigynum reddish. Upper row of eyes procurved, equal in size and at equal distances; lower row almost straight, shorter than upper, M. E. nearer S. E. than to each other; the four M. E. make a quadrangle wider behind than in front and much higher than wide. Hind legs very long. Male similar in color, much smaller, 6mm. long; the abdomen narrower than the cephalothorax; epigynum and palpal organ as figured.

Uncommon.

*Thargalia fallax*, nov. sp. Plate I, fig. 54.

Total length	♂		7.2mm.
Length of cephalothorax	3. mm.	breadth	2.3mm.
Length of abdomen	4. mm.	breadth	2. mm.
Length of sternum	1.2mm.	breadth	1. mm.
Length of femur I	2. mm.	tibia I	1.8mm.
Length of femur IV	3. mm.	tibia IV	2.7mm.

Color of cephalothorax a uniform dark red-brown, with a few plumose yellowish hairs; mandibles and palpi same color; mouth-parts red-brown, the tips whitish; sternum black with yellow-brown hairs; coxæ red-brown, first pair darkest; femora nearly black with black hairs; other joints of I and II reddish-yellow; other joints of III and IV red-brown. Abdomen above nearly black at base, growing more red beyond till near apex it is quite bright red, with some yellow plumose hairs; sides black; venter

red-brown with black hairs; spinnerets red-brown. Eyes as in *T. perplexa*; venter with a large median quadrangular sunken space, ♂ palpi as figured.

Two specimens in field below University.

*Thargalia bivittata* Em.

Frequent in Six Mile Creek often among ants which it resembles, Sept.

*Thargalia crocata* Hentz.

Rare, one specimen, in field near the University barn.

*Prothesima rufula*, nov. sp. Plate I, fig. 55 and 55a.

Total length	♀	5.9mm.
Length of cephalothorax	2.45mm.	breadth 1.7mm.
Length of abdomen	3.5 mm.	breadth 2. mm.
A larger ♀ total length	7. mm.	length of cephalo. 2.5mm.

Cephalothorax nearly uniform reddish, the marginal seam blackish; mandibles similar, sternum more yellow in center and red-brown on sides; lip red; maxillæ yellowish; legs red-brownish yellow; epigynum red; under spinnerets light, upper ones nearly black, abdomen above and below blue-black or blackish; venter with two narrow converging white lines. Upper row of eyes scarcely longer than lower and a little procurved; the upper M. E. large and oblique; a little black around the lower M. E. Head much narrowed; body and legs covered with black hairs; lower spinnerets the longest.

The cocoon of this species is attached to the under side of stones; it consists of two circular sheets of silk between which are placed the eggs. The outer sheet is often covered with dirt or mud so as to resemble the stone.

Frequent. Sept., Oct., Fall Creek, South Hill, Heustis St.

*Prothesima frigida*, nov. sp. Plate I, fig. 56, 56a.

Total length	♀	4.6mm.
Length of cephalothorax	1.9mm.	breadth 1.3mm.
Length of abdomen	2.7mm.	breadth 1.5mm.

Male about the same size. Cephalothorax brownish-yellow; seam black; mandibles similar; a little black around eyes; a small V-shaped blackish mark just in front of dorsal groove; basal joints of legs and palpi very light, nearly white; distal joints redder; sternum yellowish, darker on sides; epigynum reddish, surrounded by black; lower spinnerets lighter than upper; abdomen above and

below blackish; ventral lines nearly parallel; body covered with black hairs. Epigynum and palpal organs as figured; eyes as in *P. rufula*; cephalothorax widest behind the middle, head much narrowed.

Several specimens, under a stone near Fall Creek, Feb.

*Prothesima immaculata*, nov. sp. Plate I, fig. 58 and 58a.

Total length	♂		6.1 mm.
Length of cephalothorax	2.3 mm.	breadth	2.8 mm.
Length of abdomen	3.8 mm.	breadth	2.2 mm.

Cephalothorax and mandibles brownish-yellow; legs and palpi paler; sternum yellow, darker on edges; epigynum reddish surrounded by gray; lower spinnerets longer and lighter colored than upper ones; abdomen above and below dark gray; ventral lines wanting; body and legs with blackish hairs; a few white hairs on abdomen. Upper side of coxæ with many bristles; eyes as usual; a little black in lower row; epigynum as figured.

Rare. Sept., Fall Creek.

*Prothesima blanda*, nov. sp. Plate I, fig. 57 and 57a.

Total length	♂		7 mm.
Length of cephalothorax	3 mm.	breadth	2.1 mm.
Length of abdomen	4 mm.	breadth	2 mm.

Cephalothorax brownish-yellow; mandibles darker; sternum red brownish-yellow; lip very dark and maxillæ lighter; legs and palpi pale yellowish, brighter toward the tips; abdomen white above and below; spinnerets similar; lung plates yellow; two ventral lines grayish; a yellowish spot at base of dorsum; base of abdomen densely clothed with stiff bristles; body and legs with black hairs; upper row of eyes straight, no longer than lower; palpal organ as figured.

One specimen.

*Prothesima atra* Hentz.

A few specimens which probably belong to this species, from Fall Creek.

*Prothesima depressa* Em.

Not uncommon. Fall Creek, Six Mile Creek, Oct.

*Prothesima ecclesiastica* Hentz.

Frequent; often under bark in winter.



*Prothesima minima*, nov. sp. Plate IV, fig. 69.

Length ♀ 2.8mm.

Cephalothorax dull yellowish-brown; legs pale, a little tinge of greenish and brownish; eyes with black rings; sternum nearly white, a little brownish, edge with stiff black hairs. Abdomen above and below pure white, with black hairs which arise from pinkish dots; epigynum reddish; spinnerets white, and projecting beyond end of abdomen. Cephalothorax widest behind the middle, narrow in front; abdomen truncate at base, rounded behind; epigynum small as seen in figure.

One specimen under a stone in Six Mile Creek, March 19.

*Poecilochroa montana* Em.

One specimen, 24 March. Buttermilk Creek.

The cephalothorax nearly black as are the femora of the legs; the rest of the legs a much lighter brown. Received from Mr. Mac-Gillivray.

*Poecilochroa bilineata* Hentz.

Uncommon; under stones in Fall Creek.

*Gnaphosa brumalis* Thor.

Not common.

*Gnaphosa conspersa* Thor.

Common under stones.

*Gnaphosa humilis*, nov. sp. Plate I, fig. 59.

Total length	♀		13 mm.
Length of cephalothorax	5.2mm.	breadth	3.9mm.
Length of abdomen	7.8mm.	breadth	4.7mm.
Length of sternum	2.6mm.	breadth	2.1mm.

Cephalothorax reddish brown with long black hair and short pubescence; mandibles darker; sternum lighter; legs like sternum; abdomen colored as usual. Cephalothorax longer than tibia and patella IV; two spines at apex of tibiae I and II on under side, one or two on tibia II near the middle; epigynum as figured.

This may be the *G. scudderi* Thor. which Emerton considers identical with *G. brumalis* Thor. I think my specimens are distinct from this latter species. Infrequent.

*Drassus saccatus* Em.

Frequent under stones. South Hill, Six Mile Creek, Sept., Oct.

*Drassus humilis*, nov. sp. Plate I, figs. 60 and 60a.

Total length	♀		8.9mm.
Length of cephalothorax	3.9mm.	breadth	2.7mm.
Length of abdomen	5. mm.	breadth	2.5mm.

Cephalothorax and mandibles brownish yellow; seam black; a little black around the eyes; sternum brownish-yellow in center, darker on sides; lip darker; maxillæ yellow-brown; epigynum reddish surrounded by yellow; venter light grayish with black hairs; spinnerets yellowish; legs pale yellowish; dorsum dark gray with several lighter chevrons and two spots near base, these are most distinct when wet; dorsum with black hairs; epigynum as figured; upper row of eyes procurved and longer than lower row which is straight; abdomen very low and flat, broadest at middle, pointed behind; legs moderately long and slender.

Frequent under stones. South Hill. Aug.

*Clubiona obesa* Hentz. Plate I, fig. 61.

Length	♀		9mm.
Length of cephalothorax	3mm.	breadth	2mm.

Cephalothorax pale yellowish; mandibles darker yellow-brown; legs white; sternum pale, with four dark spots on the sides, one at the base of each of the four hind coxæ; abdomen pale pinkish, darkest above and with a darker median stripe which reaches to the middle of the abdomen; spinnerets white; epigynum as figured.

One specimen.

*Clubiona tibialis* Em. Plate I, fig. 62.

Large ♀, total length			7.7mm.
Length of cephalothorax	3.2mm.	breadth	2.1mm.
Length of abdomen	4.5mm.	breadth	2.1mm.
Small ♀ is 6.1mm. long; cephalothorax 3mm. long.			

Very similar to what I have called the female of *C. crassipalpis* Em. The cephalothorax yellow-brown, black in eye-region and on clypeus; mandibles and mouth-parts black; sternum yellowish, with reddish spots on sides; legs like sternum; venter similar; dorsum of abdomen more red-brown, lighter at base. Epigynum very broad as in figure; clypeus very low; mandibles very much projecting in front of cephalothorax; eye-region broad and low; body with white hairs; legs with both white and black hairs.

Two specimens from Inlet Marsh, Aug. The cocoon consists of two sheets of silk connecting the edges of a blade of a large grass. The eggs are placed in an inner case between the two sheets of silk.

The mother watches the cocoon.

**Clubiona crassipalpis** Keys. Plate I, fig. 63.

One specimen which I have thought may be the female of this species.

**Clubiona canadensis** Em.

Common, often under bark.

**Clubiona pygmaea**, nov. sp. Plate I, fig. 64.

Total length	♀		3.2mm.
Length of cephalothorax	1.4mm.	breadth	1. mm.
Length of abdomen	1.8mm.	breadth	1.2mm.

Similar in appearance to *C. rubra* Keys. Head a little darker than in that species; eye-rows not so long and eyes a little smaller; dorsum of abdomen with same spear-shaped mark and beyond this reddish; rest white; legs and sternum and venter paler whitish, sternum dark-edged; spinnerets darker than venter; abdomen a little narrower than *C. rubra*; epigynum quite different from that species as seen in figure; black bristles at base of abdomen not so prominent as in *C. rubra*.

One specimen under bark. Nov., Fall Creek.

**Clubiona rubra** Keys.

One specimen, Fall Creek. Febr.

**Clubiona abbotti** Koch. Plate I, figs. 65 and 65a.

This species is very close to *C. rubra*, Keys. The epigynum is about the same shape, the cavities are quite distinct, more so than in my specimen of *C. rubra*; the ♂ palpi are also similar to that species. The coloring is the same, except the cephalothorax is a little darker and the mandibles sometimes nearly black; abdomen in one specimen wholly gray, but usually with the red basal stripe and the red tip to abdomen. The smallest ♂ is 4 mm. long; the smallest ♀ is almost 5 mm.; others are larger. The femur of the ♂ palpus has two spines near the tip as seen in figure.

Frequent. Fall Creek, Inlet Marsh.

**Clubiona lenta**, nov. sp. Plate I, fig. 66.

Total length	♀		4. mm.
Length of cephalothorax	1.3mm.	breadth	9.5mm.
Length of abdomen	2.7mm.	breadth	1.5mm.

Cephalothorax brownish-yellow, darkest in front; mandibles similar but darker; legs and palpi whitish-yellow; sternum and maxillæ similar, former with red-brown edges and joints; lip darker; abdomen brownish-drab with a very faint trace of a redder

median basal stripe on dorsum; color made up of darker and lighter spots; spinnerets yellow; epigynum reddish, two distinct cavities close together; eyes occupying almost the whole of the front of the cephalothorax; legs with black spines and fine black hairs; abdomen with white hairs; bristles at base of abdomen not prominent.

One specimen, Fall Creek, Sept.

*Clubiona americana* Em.

This is the *C. ornata* Em. 1890, which is preoccupied by Thorell in 1875.

Common, often under bark in cases.

*Clubiona excepta* Koch.

Frequent, Primrose Cliffs, Beebe Island.

*Trachelas tranquilla* Hentz (*ruber* Keys).

*Clubiona tranquilla* Hentz.

Not uncommon, Cascadilla Creek, Six Mile Creek.

*Anyphæna incerta* Keys.

Uncommon, Indian Spring, Buttermilk Creek, Fall Creek, Nov., Feb., March.

*Anyphæna saltabunda* Hentz.

Uncommon, Six Mile Creek, Enfield Creek, Sept.

*Phrurolithus minutus*, nov. sp. Plate I, figs. 67, 67a and 67b.

Total length	♀	2.1 mm.
Length of cephalothorax	.95mm.	breadth .95mm.
Length of abdomen	1.25mm.	breadth .7 mm.

Cephalothorax bright yellow with a black stripe each side, which meet behind, and in front through the eye-region; extreme margin also black; abdomen yellowish white with black chevrons; sternum and venter yellowish white; legs yellowish, the first tibia and patella black; epigynum reddish; cephalothorax as broad as long, very low; abdomen long; the two cavities of the epigynum are close together at base and diverge, so that they are much separated behind, while in *P. pugnatus* they are closer together at the caudal part than at cephalic.

Occasional. Fall Creek, Buttermilk Creek, Sept.

*Phrurolithus pugnatus* Em.

Frequent under stones. Fall Creek.

*Phrurolithus palustris*, nov. sp. Plate I, fig. 70.

Total length ♀ 2.5-2.8mm.

Cephalothorax yellowish, with dark stripe each side connected behind; margin black; eyes on black; sternum and legs similar to cephalothorax, first tibia and patella a little darker; abdomen with blackish gray markings, spots on base of dorsum sometimes run together, and behind these, chevrons interrupted or sub-interrupted on sides; venter with a few dark spots near spinnerets and two in front of these; epigynum reddish, as figured; cephalothorax broad.

Two specimens, Indian Spring.

*Phrurolithus alarius* Hentz.

Frequent under stones.

*Agræca pratensis* Em.

Common in autumn and winter under leaves.

*Agræca ornata*, nov. sp. Plate I, figs. 68 and 68a.

Total length ♀ 4.6mm.

Length of cephalothorax 2. mm. breadth 1.7mm.

Length of abdomen 2.6mm. breadth 1.4mm.

Cephalothorax light yellowish, with faint blackish lines radiating from the dorsal groove, hem black; mandibles, palpi, mouth-parts, sternum and legs, all light yellowish, the sternum a little brownish on sides. Abdomen light yellow-brown, on hinder part of dorsum two rows of short transverse brown spots, sides with some brown spots and short stripes; venter immaculate; epigynum reddish; spinnerets light; eyes surrounded by black; a faint light-brown median stripe on basal part of dorsum.

Rare. Buttermilk Creek.

## AGALENIDÆ.

### Agaleninæ.

*Cybæus giganteus*, nov. sp. Plate I, fig. 71. Plate V, fig. 71.

Total length ♀ 11.5mm.

Length of cephalothorax 5mm. breadth 3.4mm.

Length of abdomen 7mm. breadth 4.9mm.

Cephalothorax dark red-brown, shining; mandibles similar; legs and palpi a little lighter; under side of coxæ yellow-brown; sternum yellow-brown in center, darker and reddish-brown on sides; mouth-parts reddish-brown with tips lighter; venter gray; lung-plates lighter; epigynum reddish; spinnerets yellowish; dorsum

and sides dark grayish-black, with a short, median, basal, light stripe, not reaching to the middle of the dorsum, and each side of this two oblique light spots. Abdomen covered with short black hairs. Upper row of eyes nearly straight, lower recurved, so that the S. E. are closer together than the M. E.; mandibles strongly convex and projecting in front of head; head high and arched; median groove short; from it radiate several grooves to the sides, which at the bottom are a little darker than the surrounding space; lip more than half length of maxillæ, truncate at tip; sternum broad in front, pointed behind between hind coxæ; legs moderately long, with many not very long, appressed, bristly, black hairs, and longer black spines; four pairs of spines on under side of tibia I and II; three pairs on under side of tibia III and IV; abdomen large and thick; widest a little beyond the middle; epigynum as figured; hinder spinnerets not longer than front ones and furnished with tubules only at the tip.

One specimen.

*Cœlotes medicinalis* Hentz.

Not common.

*Cœlotes fidelis*, nov. sp. Plate I, fig. 72. Plate V, fig. 72.

Total length	♀		10.9mm.
Length of cephalothorax	4.9mm.	breadth	3.2mm.
Length of abdomen	6 mm.	breadth	3.9mm.
Total length	♂		8 mm.

Very similar to *C. lamellosus* Keys.

Cephalothorax yellow-brown with radiating lines; head darker; mandibles red-brown; mouth-parts red-brown, sometimes lighter at tips; sternum, legs and palpi yellow; sternum with dark edges; legs with indistinct dark rings on femora; abdomen nearly white, with many dark spots and lines most numerous on dorsum, not so numerous, however, as in *C. longitarsus* and *C. allilis*; mandibles not so much projecting as in those species; epigynum and palpal organs as figured. Many specimens, all very constant in shape of the epigynum, which is quite different from *C. lamellosus*.

Common in woods.

*Cœlotes longitarsus* Em. Plate IV, fig. 73.

The ♂ agrees with Emerton's description and figures. What I take to be ♀ is different from his ♀.

Not uncommon under leaves in autumn and winter.

Total length	♀	8 mm.
Length of cephalothorax	3.85mm.	breadth 2.1mm.
Length of abdomen	4.2 mm.	breadth 2.5mm.

The coloring is similar to the ♂ ; the epigynum as figured.

*Cœlotes atilis*, nov. sp. Plate I, fig. 74. Plate IV, fig. 74a.

Total length	♀	13.2mm.
Length of cephalothorax	6 mm.	breadth 3.5mm.
Length of abdomen	7.2mm.	breadth 4.9mm.

Cephalothorax yellow-brown; head darker reddish-brown; mandibles similar; cephalothorax with a few radiating darker stripes; mouth-parts red-brown, light at tips; sternum yellow-brown, darker on edges; under side of coxæ and femora light yellow-brown, rest of legs and palpi brighter yellow-brown, distal joints darkest; epigynum reddish; spinnerets yellowish; abdomen light gray, thickly covered above and on the sides with dark spots, and a few scattered spots on venter; on median line of dorsum the dark so arranged as to leave several white chevrons; abdomen with short black hair; differs from *C. montanus* in shape of epigynum.

Frequent in autumn and winter under leaves.

*Cœlotes lineatus*, nov. sp.

Total length	♂ juv.	8.5mm.
Length of cephalothorax	3.8mm.	breadth 2 mm.
Length of abdomen	4.8mm.	breadth 2.8mm.

One specimen of this curious species which is a young male in the next to last moult. Cephalothorax yellow, with white stripe on each side, and extreme margin black; the radiating bands on cephalothorax as usual; the front row of eyes and S. E. of second row on a black band; each upper M. E. surrounded by a black ring; cephalothorax covered with scattered fine black hairs; on the head are five lines of black bristles; two on each side, one arising from the upper S. E. and one from the upper M. E., these run caudad and soon disappear; another arising between the lower M. E. and passing above between the upper M. E. and then runs caudad to the dorsal groove, this is very distinct; mandibles dark yellow-brown; mouth-parts and sternum yellowish, latter darker on edges, both with long black hairs; legs yellowish, with darker rings on femora; legs with long black hairs, sometimes becoming bristles; the arrangement of these is very peculiar. A linear space on under side of coxæ is barren of hairs; two linear spaces on upper side of femora and patellæ are also bare; between them the hairs are long

and bristly; on hinder side of femora another barren stripe; near tip of femora are some short dark lines not of hairs, in one of them is a very large and long spine; the joints beyond show less trace of lines and are densely covered with long black hairs which give the appearance of being very black in color; abdomen whitish with scattered dark spots, very indistinct on venter; head long and narrow and very distinct from the cephalothorax.

One specimen, Summit Marsh, Aug.

**Cœlotus gnavus**, nov. sp.

Total length	♀		6.9mm.
Length of cephalothorax	3mm.	breadth	2. mm.
Length of abdomen,	4mm.	breadth	2.2mm.

Cephalothorax brownish-yellow with a black marginal seam; mandibles similar; legs same but lighter; sternum darker; abdomen almost wholly covered with black, leaving only numerous small white spots; spinnerets yellow-brown; epigynum reddish; surrounded by black; lung plates white: epigynum with a simple oval opening behind.

This may be what Emerton has called the ♀ of *C. longitarsus*.

One specimen.

**Tegenaria derhami** Scop.

Frequent in houses.

**Cicurina complicata** Em.

One specimen, female.

**Cicurina arcuata** Keys.

Common under leaves in autumn and winter.

**Cicurina pallida** Keys.

Not uncommon under leaves in winter.

Six Mile Creek, Fall Creek.

**Cicurina creber**, nov. sp. Plate I, figs. 76, 76a, and 76b.

Total length	♀ and ♂		3.3mm.
Length of cephalothorax	1.4mm.	breadth	1. mm.
Length of abdomen,	1.9mm.	breadth	1.2mm.

Size varies, some larger and some smaller. Cephalothorax pale yellow-brown, scarcely darker on head; eyes surrounded by a little black; mandibles a little darker yellow-brown; legs and palpi light yellow-brown, distal joints brightest; sternum yellowish; mouth-parts darker; venter whitish with faint traces of darker spots; spinnerets white, surrounded at base by blackish; epigynum red and



very prominent; abdomen grayish-white with a more or less distinct medium dark stripe on basal part of dorsum, not reaching to the middle of abdomen; behind this several pairs of dark spots sometimes indistinct or wanting; abdomen covered with white hairs; legs with both white and black hairs and red-brown spines; sternum with black hairs.

Abundant under leaves in autumn and winter.

*Cicurina placida*, nov. sp. Plate I, fig. 77.

Total length   ♀   5mm.

Very similar to *C. creber*; color and markings the same; sometimes the abdomen has a spot each side of the basal stripe. Differs from *C. creber* chiefly in size and in the shape of the epigynum, which is not as prominent as in that species. Cephalothorax sometimes redder than in that species.

Not uncommon under leaves with the other species. Coy Glen, Buttermilk Creek, Fall Creek.

*Hahnia radula* Em.

One specimen.

*Hahnia bimaculata* Em.

Frequent under leaves in winter.

Fall Creek, Cascadilla Creek, Six Mile Creek.

*Hahnia cinerea* Em.

Uncommon, under leaves as the other species.

Fall Creek, Buttermilk Creek.

*Agalena nævia* Bosc.

Abundant and extremely variable.

#### Amaurobinæ.

*Dictyna volucris* Keys.

Frequent in grass all summer; often with young.

*Dictyna sublata* Hentz.

*D. muraria* Em.

Common in summer on grass.

*Dictyna longispina* Em.

Not uncommon; summer in grass.

*Dictyna minuta* Em.

Not uncommon; summer in fields.

**Dictyna cruciata** Em. ?

One specimen, probably this species.

**Dictyna foxii** Marx.<sup>1</sup> Plate I, figs. 78 and 78a.

Total length	♀	2mm.
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Cephalothorax pale yellow-brown; darkest in front; mandibles similar; eyes surrounded by black; front M. E. very small; legs yellowish, growing brighter from behind forward; sternum a little yellowish; abdomen white, with a short median spot on front of dorsum black, and behind this several black bands, somewhat in the form of chevrons, fainter spots on the sides; spinnerets more or less surrounded by black.

Two specimens, Oct., Fall Creek.

**Dictyna volupis** Keys.

Abundant in grass in summer, under bark in winter.

**Dictyna frondea** Em.

One specimen, South Hill.

**Dictyna maxima**, nov. sp. Plate I, fig. 79. Plate IV, fig. 79a.

Total length	♀	4.3mm.
Length of cephalothorax		1.5mm.

Abdomen swollen with eggs.

Cephalothorax almost black, shining, only a little space behind eyes lighter and yellowish; mandibles black; palpi and legs white; sternum and lip dark red-brown, maxillæ lighter; abdomen light-grayish, with many small irregular, silvery spots on sides and dorsum; these leave the appearance of net-work of gray; in these spots are many small gray dots; along each upper side several rusty brown spots, the basal ones largest, apical ones smallest, sometimes these are partially connected; venter with a median red-brown stripe; spinnerets reddish; epigynum as in figure.

One specimen.

**Dictyna decorata**, nov. sp. Plate I, fig. 81. Plate IV, fig. 81.

Total length	♀	2.5-2.9mm.
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Cephalothorax dark red-brown; head and clypeus yellowish-red; mandibles reddish to yellowish-brown; sternum yellow; maxillæ similar; lip darker; legs white to yellowish; abdomen whitish; venter with a few reddish spots, sometimes in form of a central stripe; dorsum on each side with a red-brown or nearly black

<sup>1</sup>This is *Prodalina foxii* Marx. Proc. Ent. Soc. Wash., 1891.

stripe, sometimes partially divided into spots; these stripes connected at apical end by a broad irregular band of same color; sometimes a few small spots in the enclosed space. Prolongations of the markings often extend down on the sides of the abdomen, especially posteriorly; spinnerets light; the abdomen is somewhat longer and narrower than usual; abdomen above with many blackish hairs.

Several specimens. April under bark, and in summer.

*Dictyna dubia*, nov. sp. Plate I, fig. 82a.

Total length                                        ♀                                        2·7mm.

Cephalothorax dark red-brown, head and clypeus yellowish-red; mandibles yellow-brown; legs and palpi whitish; sternum and lip yellow-brown; maxillæ lighter; venter yellowish; dorsum grayish, covered with yellow spots leaving a gray network, little dots of gray in the yellow spots; each side of dorsum an indistinct stripe of rusty brown, most distinct near base; abdomen elliptical, well rounded.

One specimen.

*Amaurobius silvestris* Em.

Common under stones.

*Titanœca americana* Em.

Frequent under stones, Fall Creek, Enfield Creek.

*Neophanes* Marx.

General structure of *Dictyna*; eyes six in two groups, three each side; calamistrum and cribellum present in both sexes; lip triangular; small species.

*Neophanes pallidus* Marx. Plate III, figs. 86, 86a and 87.

Length    ♀ and ♂                                        1·1mm.

Cephalothorax yellow-brown, with a few blackish marks; the eyes on two black patches, one each side; mandibles more yellow than cephalothorax; legs yellowish, basal part of hind pair more white; sternum white, a little tinge of yellow; lip more yellow; abdomen nearly white, a little grayish.

Structure very peculiar; eyes six in two groups; calamistrum and cribellum distinct in both sexes; lip long triangular, a tooth each side of base; spinnerets six, separated; tubules only on adjacent surfaces of under pair; palpi and epigynum as figured; one specimen a little smaller with a greenish abdomen does not seem

different. Found under stones or leaves in holes in the ground often an inch from the surface.

Not uncommon in Buttermilk Creek, Fall Creek, Six Mile Creek. Two female specimens agree closely with these typical specimens, except that the sternum is extremely narrow and the lip broad at tip as seen in fig. 87. It may be a new species but the epigynum is the same.

## Therididæ.

### Theridinæ.

*Theridium tepidariorum* Koch.

Abundant, in houses and about buildings; occasionally found on cliffs in gorges.

*Theridium rupicola* Em.

Not uncommon, under stones, Six Mile Creek, Dec.

*Theridium kentuckyense* Keys.

One female; similar to the male but a little larger; epigynum as on Plate V, fig. 43.

*Theridium differens* Em.

Not uncommon in evergreen trees.

*Theridium spiralis* Hentz.

More common than the preceding; in evergreen trees and elsewhere.

*Theridium murarium* Em.

Not uncommon, Six Mile Creek; evergreen trees.

*Theridium punctis-sparsum* Keys.

Uncommon, Fall and Cascadilla Creeks, Dec., Feb.

*Theridium frondeum* Hentz.

Very common in summer.

*Mimetus interfactor* Hentz.

Infrequent, Fall Creek, Six Mile Creek, Freeville, Aug. Sept.

*Mimetus epeiroides* Em.

One young specimen probably this species. Buttermilk Creek, Aug.

*Ero thoracica* Reuss.

One specimen, Inlet Marsh, March.

**Steatoda borealis** Hentz.

Common often about buildings.

**Steatoda marmorata** Hentz.

Not uncommon in gorges.

**Steatoda guttata** Reuss.

Uncommon, Primrose Cliff, Inlet Marsh ; Nov., Dec.

**Steatoda triangulosa** Walek.

Two specimens.

**Dipœna nigra** Em.

*Steatoda nigra* Em.

Not uncommon, Fall Creek, Six Mile Creek.

**Argyrodes trigonum** Hentz.

Not uncommon in *Linyphia* webs in gorges.

**Euryopsis funebris** Hentz.

One specimen on campus.

**Pholcomma hirsuta** Em.

Not uncommon, Buttermilk and Fall Creeks ; during autumn and winter.

### Erigoninæ.

**Ceratinella fissiceps** Cambr.

Not uncommon in grass in spring and summer.

**Ceratinella similis**, nov. sp. Plate V, figs. 61, 61a and 61b.

Total length                      ♀ and ♂                      1.4mm.

Male sometimes a little smaller than female. Cephalothorax orange ; eye region black ; legs light yellow-brown ; mandibles and sternum orange ; abdomen whitish, with a slight grayish-yellow tinge ; epigynum and spinnerets dark or black ; ♂ palpi with tarsus black ; hard spot on male dorsum, orange ; muscular impressions of female orange and hard, no hard spot on dorsum ; hard spot at base of venter, and a little spot in front of spinnerets ; head of male elevated and projecting cephalic but not humped ; head of female normal.

Frequent, Six Mile Creek, South Hill, Sept., Nov., Apr.

**Ceratinella minuta** Em. Plate II, fig. 60. Plate IV, fig. 60.

Not uncommon, Fall Creek, Aug.

*Ceratinella bulbosa* Em. Plate V, fig. 59, 59a.

The female is about the same size as the male, it has no hard spot on dorsum; the abdomen in most of my specimens is dark gray, much darker than in *C. fissiceps*.

Not uncommon. Round Marshes, Fall Creek near Varna; upper part of Six Mile Creek; Oct. March, Apr.

*Ceratinella pygmea* Em. Plate II, fig. 57.

The female is about the same size and color as the male with a hard spot on dorsum.

One male and one female, Fall Creek and Buttermilk Creek, Oct., Nov.

*Ceratinella atriceps* Cambr.

Rare, Fall Creek, Inlet Marsh. Feb., March.

*Ceratinella mœsta*, nov. sp. Plate II, fig. 58. Plate V, fig. 58.

Total length	♂		1.5 mm.
Length of cephalothorax	.7mm.	breadth	.55mm.
Length of abdomen	.8mm.	breadth	.6 mm.

Cephalothorax very dark and brown; legs orange, a little brownish towards the tips, sternum red-brown; hard spot on dorsum dark orange; rest of dorsum dark gray; venter still darker; head very high; hard spot on dorsum, not very large, elliptical, distinct; spinnerets dark.

One specimen. South Hill beyond Buttermilk Creek, Nov.

*Ceratinella lætabilis* Cambr.

Rare, Cascadilla Creek, Fall Creek near Varna, Febr. March.

*Ceratinella brunnea* Em.

Uncommon, Cascadilla Creek, Fall Creek, Aug., Feb., March.

*Ceratinella micropalpis* Em.

Rare, Six Mile Creek, Nov.

*Ceratinella placida*, nov. sp. Plate II, figs. 54, 54a.

Total length	♂		1.25mm.
Length of cephalothorax	.55mm.	breadth	.45mm.
Length of abdomen	.8 mm.	breadth	.7 mm.

Cephalothorax light greenish-brown; legs nearly white; palpi greenish; sternum greenish-gray; spinnerets and a spot in front of them white; hard spots on dorsum indistinct, a little tinge of orange; the basal one yellowish; abdomen dark gray with a greenish tinge; head of male slightly elevated, not humped, but somewhat pro-

jecting anteriorly; dorsal hard spot large, covering nearly all the dorsum. A female from Cascadilla Creek has a darker abdomen, and the hard spot is brighter than in male; sternum is darker on sides; cephalothorax is more yellow as is also the legs; the hard spot has no distinct limits.

Uncommon, Cascadilla Creek, Burdick's Glen; Sept., Feb.

*Ceratinella formosa*, nov. sp. Plate II, figs. 55 and 55a.

Total length ♀ 1·8mm.

Cephalothorax dark yellow-brown; darkest at cephalic end; legs pale brownish-yellow; sternum dark; abdomen nearly black, except the upper part of the base, which is covered by a hard spot extending only a little way on the dorsum; this is a bright orange-red color; head not elevated; on apex of dorsum a few faint narrow chevrons of white; the four muscular impressions are about over the middle of the abdomen, the hind pair not much farther apart than are the front pair; these are also reddish in color; abdomen widest somewhat behind the middle.

Rare, Fall Creek, Sept.

*Ceratinella annulipes*, nov. sp. Plate II, figs. 56, 56a and 56b.

Length ♀ 1·8mm.

Cephalothorax dark chestnut brown; sternum dark red-brown; abdomen dark gray, nearly black above; legs red-brown, most of patella and ends of other joints yellowish; no hard spot, ends of muscles form reddish impressions on dorsum; head not elevated; epigynum as figured.

One specimen.

*Ceratinopsis interpres* Cambr.

Two specimens, Six Mile Creek and Round Marshes, Oct., Apr. They are redder than in the description of Emerton.

*Ceratinopsis nigriceps* Em.

Frequent, Six Mile Creek, Buttermilk Creek, Cascadilla Creek, Inlet Marsh, Sept., Jan.

*Ceratinopsis nigripalpis* Em.

One young specimen. Buttermilk Creek, Sept.

*Ceratinopsis frontatus*, nov. sp. Plate V, fig 63.

Length ♀ 1·5mm.

Cephalothorax dull yellowish-brown; blacker on head, which is somewhat raised; legs a dull orange or brownish-yellow; sternum

blackish; venter whitish; dorsum a little darkened by small black patches; S. E. on tubercles; epigynum red-brown.

One specimen, Fall Creek, March.

*Grammonota pictilis* Cambr.

Several specimens, Fall Creek, Sept., March.

*Grammonota ornata* Cambr.

Two specimens, Fall Creek, near Varna, March.

*Grammonota venusta*. nov. sp. Plate V, fig 64.

Length ♀ 2mm.

Cephalothorax dark yellow-brown, marginal seam black, eyes on black; indistinct dark lines on cephalothorax; mandibles red-brown; sternum nearly black; legs bright brownish-yellow; abdomen nearly black, with a pattern of light markings similar to the other species but smaller; epigynum black; head a little raised; lung-plates yellowish; cephalothorax nearly smooth, abdomen very hairy; head about one-half the length of cephalothorax, which is broad in front and not much wider in middle.

Two specimens, Coy Glen, Feb.

*Spiropalpus spiralis* Em.

One specimen, Freville, Aug.

*Cornicularia directa* Cambr.

One specimen, Fall Creek, Oct.

*Cornicularia communis* Em.

One specimen, South Hill, Apr.

*Cornicularia indirecta* Cambr.

One specimen, Six Mile Creek, Apr.

*Cornicularia pallida* Em.

One specimen probably this species. Round Marshes, Oct.

*Cornicularia formosa*, nov. sp. Plate V, fig. 35.

Length ♀ 2mm.

Cephalothorax bright yellow; eyes on a black patch; no dark seam; mandibles dusky at tip, rest yellowish; sternum lemon-yellow; legs very pale whitish; abdomen gray, with a tinge of pink, many small indistinct darker patches; epigynum dark; legs long and head low.

Two specimens.



*Cornicularia placida*, nov. sp. Plate V, fig. 36.

Length                                  ♀                                  1.9mm.

Somewhat similar in general appearance to what I have called *C. directa*; but the epigynum is quite different, cephalothorax pale chestnut brown, darker on the head; abdomen nearly white; epigynum reddish; legs and sternum brownish-yellow.

One specimen, Fall Creek, Oct.

*Lophomma cristata* Blk.

One specimen, South Hill, Apr. Probably this species.

*Lophocarenum castaneum* Em. Plate IV, fig. 3.

Several females which I take to be this species. The cephalothorax is somewhat more yellowish than in the description; the abdomen is large and well rounded.

Fall Creek, March.

*Lophocarenum tristis*, nov. sp. Plate IV, fig. 1.

Length                                  ♀                                  2.3mm.

Cephalothorax dark red-brown; legs brownish-yellow; mandibles dull reddish-brown, sternum and abdomen very dark gray; head a little elevated; abdomen large oval; the middle of hind margin of epigynum is a little raised; sternum quite convex; legs not long.

Three specimens, Inlet Marsh, Apr.; Fall Creek, Oct.

*Lophocarenum florens* Cambr.

Not uncommon, Round Marshes, Oct.; Burdick's Glen, Sept.

*Lophocarenum unimaculatum*, nov. sp. Plate IV, fig. 2, 2a.

Total length                                  ♀                                  2.4mm.

Length of cephalothorax    1.2mm.                                  breadth    1. mm.

Length of abdomen                              1.6mm.                                  breadth    1.2mm.

Cephalothorax orange above and below; eyes surrounded by black rings; clypeus and mandibles orange; palpi yellow; coxæ yellowish; base of femora reddish often extending beyond the middle; patella tibia and metatarsus dark, nearly black; tarsus lighter; abdomen orange yellow above and below, with a large bluish-black spot in centre of dorsum, spot rounded behind and pointed in front.

A pretty species found in Inlet Marsh among leaves, Oct.; and later in Nov. under bark.

*Lophocarenum miniatum*, nov. sp. Plate IV, fig. 4.

Length   ♀   3mm.

Cephalothorax bright orange red, darker near eyes; mandibles, palpi, sternum, coxæ and femora of legs orange-red, other joints of legs lighter; abdomen dark gray; in one specimen an oblique light stripe each side; spinnerets yellowish; epigynum reddish; structure as usual in the genus.

Two specimens, Freeville, May.

*Lophocarenum venustum*, nov. sp. Plate IV, fig. 5.

Length   ♀   2.7mm.

Cephalothorax orange brightest on cephalic part; eyes on black; legs lighter and more yellow; mandibles brownish at tips; sternum orange, abdomen gray; muscular impressions on dorsum brownish, the basal pair larger and just about twice as close together as are the other pair; as seen from the side, on the caudal edge of the mandible, about one-third the distance from the base, is a rounded tubercle.

Two specimens, South Hill beyond Buttermilk; Freeville, Nov., Aug.

*Lophocarenum montiferum* Em.

Several specimens, Six Mile Creek, Apr.

*Lophocarenum parvum*, nov. sp. Plate IV, figs. 6, 6a and 6b.

Cephalothorax pale yellowish; a line of black around the head; marginal seam blackish; eyes surrounded by black; size 1.5mm.; legs whitish or nearly colorless; mandibles a greenish-white; sternum a yellowish-brown, darker on edges; abdomen dark gray with a little tinge of green; palpal organ reddish; palpi long, especially the femur, tibia swollen at tip and with teeth; head elevated; groove just behind the S. E., hole in this groove; legs moderately long; cephalothorax widest nearly at hind margin, which is concave.

One specimen, Six Mile Creek, Sept.

*Lophocarenum exiguum*, nov. sp. Plate V, figs. 7, 7a, 7b.

Length   ♂   1.5mm.

Cephalothorax dark yellow-brown, darkest at cephalic end; marginal seam black; legs bright yellow-brown, distal joints paler; mandibles pale; sternum yellow-brown; darker than legs; abdomen nearly black, with rows of large hairs; head greatly elevated;

upper M. E. can not be seen in a front view. The sternum is very broad, and the anterior margin is straight. The groove and hole on head is just above the S. E.

One specimen, Fall Creek, Jan.

*Lophocarenum spiniferum* Cambr.

One specimen, South Hill, Oct.

*Lophocarenum crenatum* Em.

Several specimens, Six Mile Creek.

*Lophocarenum crenatoideum*, nov. sp. Plate IV, figs. 8, 8a and 8b.

Length ♂ 1.5mm.

Cephalothorax brownish-yellow; eyes surrounded by black; a blackish line around head; legs white or nearly colorless; sternum yellowish-brown, quite dark; mouth-parts and mandibles pale yellowish; abdomen shining, dark gray, a little greenish, with long white hairs; palpal organ scarcely colored; cephalothorax with sides crenate; head narrowed at upper M. E., then widened; a few cross ridges on middle of cephalothorax; cephalothorax broadest at about middle; an elongate groove just behind S. E., hole at cephalic end of groove.

One specimen, Six Mile Creek, Sept.

*Lophocarenum erigonoides* Em. Plate IV, fig. 9.

Several specimens, Six Mile Creek, Sept.; Fall Creek, Feb.

*Lophocarenum formosum*, nov. sp. Plate IV, fig. 10. Plate V, fig. 10.

Length ♂ 1.2mm. length ♀ 1.4mm.

Cephalothorax bright brownish-yellow; head darker; marginal seam black; legs paler than cephalothorax; sternum red-brown, edges nearly black; abdomen nearly black, lighter on venter of female; a line of pale spots on each side of venter; abdomen long-haired; tibia of male palpus with two black teeth; head of female scarcely elevated, male considerably raised; hole just behind the S. E.; farther caudad near the end of head is a groove.

Several specimens, South Hill, Six Mile Creek, May, Oct.

*Lophocarenum arvensis*, nov. sp. Plate IV, fig. 11.

Length ♀ 2mm.

Cephalothorax and mandibles dark red-brown; darkest on head, which is but little elevated, not humped; palpi red-brown; legs bright brownish-yellow; sternum red-brown; abdomen nearly

black; cephalothorax widest in middle, tapering a little and rounded behind; head broad.

Two specimens, Fall Creek in field, Feb., May.

*Lophocarenum longior*, nov. sp. Plate IV, figs. 12 and 12a.

Length ♀ 2mm.

Cephalothorax dull brownish-yellow; darkest on head; eyes on black rings; black seam scarcely apparent; legs and palpi pale, scarcely colored; mandibles brownish-yellow brighter than cephalothorax; sternum brownish-yellow, blackish on edges; epigynum reddish; venter light gray; dorsum darker gray, but still quite light, lightest at base; the abdomen is longer than usual in the genus; mandibles somewhat convex in front.

One specimen, Burdick's Glen, Sept.

*Tmeticus unicorn*, nov. sp. Plate IV, figs. 13, 13a.

Total length	♂	1.2mm.
Length of cephalothorax	.55mm.	breadth .5mm.
Length of abdomen	.75mm.	breadth .5mm.

Cephalothorax and legs yellowish; abdomen gray; palpi yellow, organ reddish and black, sternum and venter dark gray; horn yellow; legs with many black hairs; spinnerets white; head elevated, no holes; from middle of clypeus projects a slender horn, somewhat larger at tip than in middle; tip with some stiff hairs; the tibia of male palpus with a long projection.

One specimen, Six Mile Creek, Nov.

*Tmeticus trilobatus* Em.

One specimen, Fall Creek, Oct. The palpus is almost the same as the figure in Emerton, but the tibia seems to have more projections at the tip.

*Tmeticus obscurus*, nov. sp. Plate II, figs. 14, 14a.

Length ♂ 1.7mm.

Cephalothorax and mandibles dull brownish-yellow; eyes on black; legs paler; sternum and abdomen dark, latter a little greenish and lighter above than on venter; head higher than in most species of the genus, as is also the abdomen; cephalothorax broad, widest behind the middle, not much narrowed behind; mandibles with a tooth in front; tarsi of palpi gone, tibia enlarged and with several projections.

One specimen, Six Mile Creek.

*Tmeticus flaveolus*, nov. sp. Plate IV, fig. 15.

Length  $\delta$  1.2mm.

Cephalothorax bright brownish-yellow, with a black seam; eyes with black rings; legs yellowish, paler than cephalothorax, first pair darkest, fourth pair lightest; sternum blackish-yellow; abdomen pale greenish-gray; cephalothorax low; widest behind the middle; palpal organ reddish; tibia enlarged and with several short projections, not so much as in *T. maestus*; palpal organ smaller than in that species; a large tooth in front on mandibles; a female, perhaps of this species a little smaller.

One male and one female, South Hill, Oct.; Fall Creek, Feb.

*Tmeticus luxuosus*, nov. sp. Plate IV, fig. 16.

Length  $\delta$  2.2mm.

Cephalothorax a uniform orange; no dark edge; mandibles similar but blackish at tips; black around eyes; legs pale yellowish; sternum light orange; abdomen light gray; no tooth on front of mandibles; cephalothorax broad in front, widest at dorsal groove; abdomen narrow; palpal organ small; tibia swollen at tip, with several projections.

One specimen, Fall Creek, Aug.

*Tmeticus rusticus*, nov. sp. Plate II, fig. 17.

Length  $\delta$  1.5mm.

Cephalothorax brownish-yellow; legs somewhat orange, except patella which is yellow; sternum blackish-yellow brown; no teeth on front of mandibles; abdomen black; head a little higher than usual; palpal organ large, dark red-brown, very complicated.

One specimen, Buttermilk Creek, March.

*Tmeticus pallidus* Em.

Two specimens, Six Mile Creek, Dec.

*Tmeticus humilis*, nov. sp. Plate IV, fig. 18.

Length  $\delta$  1.6mm.

Cephalothorax yellow-brown, with a black margin; eyes on black; mandibles yellow-brown, no tooth in front; abdomen nearly black; legs yellow brown but paler than cephalothorax, the first pair darkest; sternum black; spinnerets yellowish; cephalothorax widest at dorsal groove, narrower behind.

One specimen, Inlet Marsh, Nov.

*Tmeticus mæstus*, nov. sp. Plate IV, fig. 19.

Length ♂ 1.5mm.

Cephalothorax, legs and mandibles brownish-yellow; eyes on black; cephalothorax with a few dark marks, one large one just behind head; and a line each side reaching to the hind S. E.; sternum dark gray, abdomen a little lighter than sternum; cephalothorax widest behind the middle; mandibles large, with a tooth in front; legs quite long; palpi a little longer than usual.

Two specimens, Primrose Cliff, Dec.

*Tmeticus debilis*, nov. sp. Plate IV, fig. 20.

Length ♂ and ♀ 1.9mm.

Cephalothorax brownish-yellow; eyes on black; seam black; legs lighter than cephalothorax; sternum dark brown; venter nearly black; dorsum of abdomen lighter, very hairy; cephalothorax widest much behind the middle; tibia of palpus not much enlarged.

Several specimens, Inlet Marsh, Primrose Cliff, Buttermilk Creek, Dec., March.

*Tmeticus palustris*, nov. sp. Plate IV, fig. 21.

Length ♂ 1.9mm. Length ♀ 1.9mm.

Cephalothorax yellow; legs similar but lighter; eyes on black; abdomen dark gray; sternum yellow-brown, darkest on edges; epigynum reddish-black; palpal organ reddish; abdomen of male no wider than cephalothorax, in female the abdomen is wider; head of male a little raised; a tooth on front of male mandibles, legs moderately long.

Two specimens from Round Marshes in May, with a web in the throat of the leaves of the Pitcher plant; one specimen, which appears to be the same, from Fall Creek, Oct.

*Tmeticus distinctus*, nov. sp. Plate IV, fig. 22.

Length ♀ 1.3mm.

Cephalothorax dull yellowish-brown, with faint blackish markings; no black seam; eyes with black rings; sternum dull yellowish brown, blacker on edges, abdomen dark to light gray; legs dull yellowish-brown, a little duller than cephalothorax; epigynum reddish; head low; cephalothorax not tapering much at either end; legs short.

One specimen, in woods west of Varna, March.

**Tmeticus maculatus**, nov. sp. Plate IV, fig. 23.

Length ♀ 1·8mm.

Cephalothorax and legs brownish-yellow, quite bright; eyes on black rings; mandibles and palpi a little brighter than cephalothorax, a narrow black seam; sternum blackish; epigynum reddish; abdomen gray, darker on venter; dorsum with several pairs of transverse indistinct white spots, most clearly seen when wet; epigynum of two flat lobes; no traces of teeth on front of mandibles.

Two specimens, Coy Glen, Feb.

**Tmeticus minutus**, nov. sp. Plate II, fig. 24.

Length ♂ 1mm.

Cephalothorax pale yellowish, head darkest; eyes with black rings; margin scarcely darkened; mandibles brighter than cephalothorax; legs pale, with a little brownish and a little tinge of red, sternum yellowish; abdomen greenish-gray with a few paler spots above; palpal organ dark red-brown; spinnerets white; no tooth on front of mandibles; tibia of palpus not enlarged; the front M. E. are much smaller than the others.

One specimen, in woods west of Varna, March.

**Tmeticus gnavus**, nov. sp. Plate V, fig. 44.

Length ♂ 1·3mm.

Cephalothorax brownish-yellow, a little darker on edge, with a black margin; eyes on black; mandibles yellowish with a large tooth in front; palpi and legs brighter yellow; sternum dark, nearly black; abdomen dark gray almost black; spinnerets light; cephalothorax very low, wide and short; abdomen narrow; tibia of palpus with several projections.

One specimen, Six Mile Creek, Apr.

**Erigone longipalpis** Em.

One specimen, Inlet Marsh, April.

#### Linyphinae.

**Linyphia marginata** Koch.

Common.

**Linyphia communis** Hentz.

Not uncommon, Freeville, May.

**Linyphia clathrata** Sund.

One specimen, Inlet Marsh, Nov.

*Linyphia phrygiana* Koch.

Common.

*L. phrygiana* var. *annulipes*.

A little smaller with distinct rings on tibia, while beyond there is scarcely any red marks. There are one or two extra dark marks on the side of the abdomen near the base; the median stripe on the cephalothorax is divided into four parts on the head, one running to each eye.

A few specimens, Fall Creek.

*Linyphia mandibulata* Em.

Not uncommon in gorges and elsewhere.

*Linyphia variabilis*, nov. sp. Plate II, fig. 28.

Total length	largest ♀	4 mm.
Length of cephalothorax	1.9mm.	breadth .9 mm.
Length of abdomen	2.2mm.	breadth 1.35mm.

Cephalothorax reddish-yellow to red, with a black line on margin, mandibles same as cephalothorax; mouth-parts and sternum dark reddish, sternum often jet black; legs light russet yellow to greenish-yellow; venter dark red-brown; a silvery white band around the sides just above the edge of the dark venter; above this a dark red-brown stripe, about same width or wider, this occasionally sub-interrupted at middle. On dorsum within this last stripe, the ground color is chocolate or lighter, with small silvery spots, and when fully developed the ordinary folium like *L. marginata*, but usually more or less broken; spinnerets black. Cephalothorax narrowed just in front of first pair of legs; gradually elevated toward the eyes; deeply emarginate behind; area occupied by M. E. higher than broad, and broader behind than in front; S. E. touching each other; legs hairy, with few spines; specimens not quite adult of both sexes.

Not uncommon, Round Marshes, Fall Creek, Six Mile Creek, Oct., Feb.

*Linyphia conferta* Hentz. Plate II, fig. 38.

Total length	♀ and ♂ young	3.3mm.
Length of cephalothorax	1.1mm.	breadth .9mm.
Length of abdomen	2 mm.	breadth 1.1mm.

Cephalothorax yellow-brown; eyes on black; a black seam; mandibles yellow-brown; legs pale greenish, sometimes a little darker at ends of joints; sternum black; venter dark red-brown



extending half way up the side; just above this a line of silvery spots, smaller in size than in *L. variabilis*; above this a row of blackish spots; dorsum reddish or yellowish, with very few small silvery spots; on middle of dorsum a pair of red-brown spots; behind them another pair, sometimes united to a larger darker spot at end of dorsum; base of dorsum with no dark spots; the end of abdomen is more like a *frontina* than is that of *L. variabilis*; the tarsus of the male palpus as far as developed, is much more triangular than that of *L. variabilis*.

Infrequent, South Hill, Apr.; Six Mile Creek, Oct.; Fall Creek, March.

*Stemonyphantes bucculentus* Clerck.

Infrequent, Buttermilk Creek, Six Mile Creek, Fall Creek, South Hill. During autumn and winter.

*Diplostyla nigrina* West.

Infrequent, Enfield Creek, Sept., Six Mile Creek, Nov. and Apr.

*Diplostyla pallida*, nov. sp. Plate II, fig. 29.

Length ♂ 2mm. length ♀ 1.9mm.

Cephalothorax pale greenish; legs similar or paler; sternum more brownish; mandibles more yellow; eyes with a little black, abdomen grayish above, with several darker, but not black, cross bands; sides and venter similar to these cross bands; epigynum nearly white, with a reddish spot each side; palpal organ reddish-brown; legs very long, head of ♂ more elevated than in ♀, and with a few stiff hairs; ♂ mandibles larger than ♀.

Three specimens, Williams Brook, Summit Marsh, Aug.

*Diplostyla alboventris*, nov. sp. Plate V, fig. 31.

Total length	♀	2.2mm.
Length of cephalothorax	.8mm.	breadth .6mm.
Length of abdomen	1.6mm.	breadth .9mm.

Size varies somewhat more than usual.

Cephalothorax yellow-brown, darkest at cephalic end and around edges; eye-region blackish; mandibles, palpi, mouth-parts and sternum similar to cephalothorax; legs lighter with a tinge of green; abdomen white, cream or grayish, with a broad black stripe on each side reaching to the spinnerets; above sometimes with a basal median black spot; behind this four cross-bands, black; the first two sometimes divided in the middle; the fourth often reaches to the stripe on side, the others do not; sometimes a trace of a fifth

cross-band; epigynum is part reddish; legs with a few spines. The male is sometimes a little larger than female; colors similar, except that there is a dark spot at base of venter, which extends caudad in some specimens and may darken the whole venter; palpal organ dark reddish; it is a beautiful structure.

Locally common, exceedingly so on Beebe Island, Fall Creek; also found in Inlet Marsh; autumn and winter.

**Diplostyla concolor** Reuss.

Not uncommon in Inlet Marsh, Sept., Nov.

**Drapetisca socialis** Sund.

Two specimens, male and female.

**Helophora insignis** Blk.

Infrequent. Dryden Lansing Swamp, Sept.; Six Mile Creek, Sept.; Fall Creek, Aug.; Round Marshes, Oct. Varies in size and markings.

**Bathyphantes minuta** Blk.

Inlet Marsh. One specimen, Nov.

**Bathyphantes nebulosa** Sund.

In houses. Forest Home and Heustis St., March and Nov.

**Bathyphantes zebra** Em.

Common in autumn and winter under leaves.

**Bathyphantes alpina** Em.

Frequent, Inlet Marsh, Buttermilk Creek.

**Bathyphantes subalpina** Em.

Frequent, Cascadilla Creek, Buttermilk Creek.

**Bathyphantes decorata**, nov. sp. Plate II, fig. 41.

Length	♀ and ♂	1.9mm.
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Cephalothorax yellow with black around eyes; a black margin; sometimes a dorsal median stripe black; legs with basal joints yellowish, distal joints paler; sternum dark brown to blackish; venter and sides of abdomen in ♂ dark, in ♀ lighter gray; sides with two silvery spots; dorsum pale with no dark markings or indistinct; a middle interrupted dark chevron and two or three, usually more complete, behind this; apex dark, a number of silvery spots in dorsum; epigynum reddish, as is also palpal organ; eyes prominent and projecting, head slightly more raised and projecting in male than female; legs long; abdomen slender.

Infrequent, Burdick's Glen, Sept.

**Bathyphantes argenteomaculata**, nov. sp.

Largest female, young, 2.3mm.

Cephalothorax pale yellowish, as are also the legs; eyes surrounded by black; margin of cephalothorax dark; sternum dark; abdomen light gray above with many small indistinct brownish spots and larger silvery spots which form two oblique stripes each side that approach each other, and several cross-bands on dorsum; legs very long; abdomen as usual.

Several specimens of this pretty species were found in Six Mile Creek in Sept., all young.

**Bathyphantes pallida**, nov. sp. Plate V, fig. 42.

Length ♀ 1.25mm.

Cephalothorax light yellow-brown; legs same color, somewhat brighter; palpi a little more gray; sternum gray or dark gray; abdomen gray or nearly white on dorsum shading into dark gray on venter; epigynum red at tip, and considerably projecting as seen in the figure; spinnerets light.

Four specimens, Six Mile Creek, Dec., Apr.; Fall Creek, Oct.

**Bathyphantes sabulosa** Keys

*Linyphia sabulosa* Keys.

Uncommon, Six Mile Creek, Oct.

**Bathyphantes zygia** Keys.

*Erigone zygia* Keys.

Not uncommon during autumn and winter under stones and leaves.

**Bathyphantes formica** Em.

Two specimens, Freeville, Aug.

**Bathyphantes umbratilis** Keys.

*Erigone umbratilis* Keys.

In field, May. A few specimens.

**Bathyphantes complicata** Em. Plate IV, fig. 26.

Uncommon, South Hill, Oct.; Fall Creek, March, Oct. The palpal organ agrees pretty closely with Emerton's figure; the color of the cephalothorax and legs is, however, yellowish, not orange.

**Bathyphantes unimaculata**, nov. sp. Plate II, figs. 65 and 65a.

Length ♂ and ♀ 1.9mm.

Cephalothorax greenish-gray with small blackish irregular patches; eyes on black; legs brownish-yellow; sternum black; abdomen dark gray; darkest on venter, almost black; a pale spot

near apex on dorsum, this is plain in both sexes; the male palpi are not long, the organ compact, the tarsal hook is very large and projects out to one side; epigynum reddish.

Not uncommon, Fall Creek, Six Mile Creek, Feb.

**Bathyphantes inornata**, nov. sp. Plate V, fig. 66.

Length  $\delta$  and  $\text{♀}$  1.8mm.

Male a little smaller and narrower.

Cephalothorax and legs yellow-brown, eyes on black; abdomen blackish or grayish, often with a greenish tinge, and with many little whitish dots; sternum dark brown or nearly black; epigynum and palpal organ reddish; head of male not raised; abdomen without markings, or at most with a few narrow light cross-lines on dorsum near apex.

Common under stones in fields, autumn and winter.

**Bathyphantes tristis**, nov. sp. Plate II, fig. 45.

Length  $\text{♀}$  1.5mm.

Cephalothorax and legs dull brownish-yellow, blackish near margin of cephalothorax; eyes with black rings; mandibles brighter yellow; sternum blackish; abdomen dark brown or nearly black; epigynum dark red-brown, showing as a roundish projection; legs not very long.

Uncommon; Fall Creek, March; Six Mile Creek, March; Inlet Marsh, Nov.

**Microneta viaria** Blk.

Several specimens, Fall Creek, Oct., Nov.

**Microneta latens**, nov. sp. Plate V, fig. 46.

Length  $\text{♀}$  2.1mm.

Young males about the same size.

Cephalothorax brownish-yellow, with a black margin, and dark rays each side; eyes on black rings; legs and palpi yellowish, sometimes with a little tinge of green; mandibles and mouth-parts yellow-brown; sternum dark gray; abdomen very dark almost black, sometimes with a tinge of green; epigynum reddish; spinnerets light; abdomen widest a little behind the middle; cephalothorax low, broadest behind the middle; legs long and slender; epigynum quite similar to *M. quinquedentata*.

Common on wet ground, during autumn and winter.

**Microneta quinquedentata** Em.

Common in autumn.

**Microneta palustris**, nov. sp. Plate II, fig. 47.

Length ♂ 2.9mm.

Cephalothorax dark orange brown, shining; legs brighter, first pair darkest, tips of legs darker than base; mandibles as cephalothorax; sternum red-brown; abdomen black, hairy; legs with long black hairs; tibia of male palpus small, without teeth, femur long; S. E. touching; upper M. E. larger than lower and a little farther apart.

Two specimens, Negundo woods, Feb.

**Microneta discolor** Em.

Several specimens, Fall Creek, Feb.

**Microneta cornupalpis** Em.

Not uncommon, Fall and Six Mile Creeks, Nov., March, April. Some females are twice as large as others.

**Microneta luteola**, nov. sp. Plate II, fig. 48.

Length ♂ 2.3mm.

Cephalothorax bright brownish-yellow; margin scarcely darker; eyes with black rings; mandibles yellowish; legs lighter than cephalothorax; sternum yellow with dark edges; venter blackish gray, with a pale line each side; dorsum gray, with a whitish band near apex, and in front of this a number of small indistinct light spots; palpal organ dark reddish; legs very long; cephalothorax very broad and low; head broad.

One specimen, Fall Creek, Nov.

**Microneta flaveola**, nov. sp. Plate V, fig. 49.

Length ♂ 1.2mm.

Cephalothorax, mandibles, and legs, pale brownish-yellow; eyes with black rings; sternum blackish; abdomen greenish-gray, lighter above, somewhat blackish on venter; palpal organ reddish; palpi short; legs long; tibia of male palpus small; abdomen small and low.

One specimen, Six Mile Creek.

**Microneta complicata**, nov. sp. Plate II, fig. 50.

Length ♂ 2.7mm.

Cephalothorax orange yellow; eyes with black rings; mandibles slender and narrow, yellowish; legs yellowish, a little lighter than

cephalothorax; sternum blackish-yellow; abdomen nearly black; spinnerets white; cephalothorax low and broad; male palpi dark reddish, very large; tarsus with a short but prominent spur and below it a curved hook; palpal organ extremely complicated.

One specimen, Michigan Hollow Swamp, Apr.

*Microneta minutissima*, nov. sp. Plate II, fig. 27.

Length ♂ .95mm.

Cephalothorax, mandibles and dorsum of abdomen pale greenish; legs and palpi still paler, almost colorless; palpal organ not much darker; eyes surrounded by black rings, which almost touch each other in the upper row, and do unite in the lower row; abdomen with scattered long black hairs; venter and sternum pale greenish, with a few blackish spots and lines, which make these parts appear darker; legs very long and slender; cephalothorax low, broadest behind the middle, quite broad in front; abdomen low and narrow.

One specimen, Fall Creek, Oct.

*Microneta frontata*, nov. sp. Plate V, fig. 51.

Length ♀ 2.4mm.

Cephalothorax reddish-yellow; legs duller and paler; eyes with black rings; sternum yellow, edges more reddish; epigynum reddish, surrounded by yellow; spinnerets yellow; abdomen gray; legs not very long and stout; head broad, abdomen low, and not much longer than cephalothorax, epigynum large and quite peculiar in shape.

One specimen.

*Microneta gigantea*, nov. sp. Plate II, fig. 52.

Length ♀ 3mm.

Cephalothorax pale yellowish, blackish on edges, a black central line on head, and one each side of head; eyes, except front M. E., surrounded by reddish rings; front M. E. much smaller than other eyes, and on black; mandibles brighter yellow than cephalothorax; legs pale yellowish, sternum similar; abdomen gray, darker above than on venter; epigynum projecting.

One specimen, Fall Creek, Aug.

*Microneta distincta*, nov. sp. Plate II, fig. 53.

Length ♂ 2.9mm.

Cephalothorax and sternum light orange-red; legs and mandibles lighter; eyes on a black patch; abdomen black; clypeus and

mandibles retreating; palpal organ dark, very complicated; tibia swollen and with several projections.

One specimen, Freeville, May.

### EPEIRIDÆ.

#### Epeirinae.

*Epeira corticaria* Em.

Locally not uncommon, Dryden Lansing Swamp, Sept.

*Epeira silvatica* Em.

Rare, Fall Creek, Oct.

*Epeira nordmanni* Thor.

Common, in gorges, Sept., Nov. Several varieties of the species.

*Epeira cinerea* Em.

Locally common, on cliffs in gorges, Buttermilk and Fall Creeks, Sept., Nov.

*Epeira sclopeteria* Clerck.

Common, Aug., Nov.

*Epeira patagiata* Clerck.

Infrequent, under bark, Inlet Marsh, Nov.

*Epeira strix* Hentz.

Common, Aug., Nov. and in spring.

*Epeira trifolium* Hentz.

Common, Sept., Nov.

*Epeira marmorea* Clerck.

One specimen.

*Epeira insularis* Hentz.

Common, Aug., Nov.

*Epeira thaddeus* Hentz.

Not uncommon, Inlet Marsh, South Hill Marsh, Sept., Oct.

*Epeira pratensis* Hentz.

Not common.

*Epeira trivittata* Keys.

Common, Sept., Oct.

*Epeira domiciliorum* Hentz.

Common, Sept., Oct.

*Epeira displicata* Hentz.

Common, Aug., Oct.

*Epeira juniperi* Em.

One specimen.

*Epeira labyrinthea* Hentz.

Common, Sept., Oct.

*Epeira globosa* Keys.

Rare.

*Epeira placida* Hentz.

Frequent in wet places, Fall Creek, Round Marshes, June, Sept.

*Epeira gibberosa* Hentz.

Common in grass, Aug., Sept.

*Epeira parvula* Keys.

Common, Sept., Oct.

*Epeira stellata* Hentz.

Infrequent, fields, South Hill, Summit Marsh, Dryden Lansing Swamp, Round Marshes, Aug.

*Epeira ithaca* McCook MSS.

Not common.

*Cyclosa conica* Pallas.

Very common.

*Singa variabilis* Em.

Not uncommon, Round Marshes and wet meadows.

*Singa maculata* Em.

Infrequent, Buttermilk and Fall Creek.

*Acrosoma rugosa* Hentz.

One male.

*Meta menardi* Latr.

Infrequent, Fall Creek, Buttermilk Creek, in dark cliffs, Sept., Oct.

*Argiope riparia* Hentz.

Common, Sept., Oct.

*Argiope transversa*.

Not uncommon, Sept., Oct.

*Argyropeira hortorum* Hentz.

Not uncommon in grass and herbs, Fall Creek, Six Mile Creek, Sept.



**Tetragnatha vermiformis** Em.

One specimen.

**Tetragnatha extensa** Linn.

Not uncommon.

**Tetragnatha grallator** Hentz.

Very common.

**Tetragnatha laboriosa** Hentz.

Common.

**Tetragnatha straminea** Em.

Common.

**Tetragnatha caudata** Em.

Rare, Inlet Marsh, males and females; the latter resemble the former.

**Tetragnatha pallida**, nov. sp. Plate V, figs. 88, 88a.

Total length	♂, not including mandibles,	9 mm.
Length of cephalothorax	3 mm.	breadth 1·8mm.
Length of mandibles	3·4mm.	fang 2·8mm.
Length of tibia and patella I	♂	10 mm.

Cephalothorax, legs, palpi, mandibles, mouth-parts and sternum yellowish, lip darker, fang reddish, and tip of palpus a little reddish; abdomen gray with many small silvery spots, no other markings; abdomen long, slender and cylindrical; narrower than cephalothorax; legs long; S. E. farther apart than M. E.; lower S. E. smaller than other eyes; mandibles very long, a large tooth in front; the largest tooth on side is the distal one, fang bent, tibia of palpus about twice as long as patella. It differs from *T. grallator* in position of eyes and shape of mandibles; from *T. vermiformis* in shape of mandibles and length of tibia of male palpus; from *T. straminea* in eyes and mandibles; from *T. extensa* in eyes, mandibles and tibia of male palpus; from *T. laboriosa* in eyes, mandibles and tibia of male palpus; from *T. caudata* in eyes, mandibles and shape of abdomen; from *T. fluviatilis* in position of eyes; from *T. illinoensis* in position of eyes.

Two male specimens.

**Pachygnatha brevis** Keys.

Not uncommon in marshes, Nov., Dec.

**Pachygnatha autumnalis** Keys.

Not uncommon, Fall Creek, Round Marshes, Six Mile Creek, Oct., Dec.

*Pachygnatha xanthostoma* Keys.

Rare, one specimen.

#### Uloborinæ.

*Uloborus plumipes* Lucas.

Rare, Six Mile Creek, Fall Creek, Aug.

*Hyptiotes cavatus* Hentz.

Very common.

#### THOMISIDÆ.

##### Thomisinæ.

*Xysticus stomachosus* Keys. Plate III, fig. 1.

Several specimens.

*Xysticus feroculus* Keys. Plate III, figs. 3 and 3a.

A few specimens, not common.

*Xysticus distinctus*, nov. sp. Plate III, fig. 89.

Total length	♀		6.7mm.
Length of cephalothorax	3. mm.	breadth	2.9mm.
Length of sternum	1.5mm.	breadth	.9mm.
Length of femur I	3. mm.	tibia I	2. mm.
Length of femur IV	2. mm.	tibia IV	1.6mm.
Distance between epigynum and spinnerets			1.5mm.

Cephalothorax a light reddish-brown on sides, growing darker and containing a large triangular light spot behind, upper edge straight; above a broad light stripe, with a median double line terminated behind by a black triangle; in front each side of this line a little tinged with brown; eyes black; clypeus white; mandibles light; legs pale, above mottled with brownish and a few black spots and with a white line on front pairs, hind legs more distinctly ringed with black at tip of femur, tip of patella, and base and tip of tibia; under side of coxæ with a few brown linear markings; sternum light with a dark border, interrupted in front, the field with many dark dots; mouth-parts brownish, abdomen above light brown, white near the apex; near base a few black spots; near apex a black blotch each side connected by a black line; in front of these two narrow transverse black bands, broadly interrupted in the middle; in front of each black band a narrow light band; venter brown mottled with blackish; epigynum yellow. The M. E. equal and equally far apart, the lower nearer the lower S. E. than to each other; M. E. form a quadrangle broader than high. Two rows of

6-7 spines on under side of tibiæ and metatarsi, I and II. Abdomen broadest behind the middle.

One adult and several young, Indian Spring.

*Xysticus brunneus*, nov. sp. Plate III, fig. 4.

Total length	♀		8.5mm.
Length of cephalothorax	4 mm.	breadth	4 mm.
Length of sternum	2 mm.	breadth	1.4mm.
Length of femur I	3.2mm.	tibia I	2.9mm.
Length of femur IV	2.5mm.	tibia IV	1.9mm.
Distance between epigynum and spinnerets			2.3mm.

Cephalothorax reddish-brown, darker on cephalic part and on sides; more yellow behind; a brighter narrow stripe on the middle; clypeus same color; falces and palpi reddish-brown; maxillæ, lip, sternum and under side of legs lighter, more yellowish, legs, upper side reddish-brown; distal joints darkest. Abdomen above and below a uniform dark brown, without markings; spinnerets reddish. Cephalothorax widest a little caudad of middle, much higher at middle than in front; clypeus vertical; eyes in two nearly equally-bent rows, those of upper row of about equal size and at equal distances from each other; the four M. E. form a quadrangle wider than high; the lower M. E. scarcely smaller and slightly nearer each other than the upper M. E.; lower M. E. scarcely nearer the much larger S. E. than each other; sternum much longer than wide; abdomen rounded; the epigynum consists of a cavity broader than long at the bottom of which two dark oblong bodies lie separated by a septum. On tibiæ I and II two rows of six to seven spines; on metatarsi I and II two rows of five to six spines.

One specimen.

*Xysticus crudelis*, nov. sp. Plate III, figs. 5 and 5a.

Total length	♀		8.3mm.
Length of cephalothorax	3.9mm.	breadth	3.8mm.
Length of sternum	2 mm.	breadth	1.5mm.
Length of femur I	3 mm.	tibia I	2.3mm.
Length of femur IV	2.4mm.	tibia IV	1.9mm.
Distance between epigynum and spinnerets			2.7mm.

Cephalothorax yellow, with sides reddish-brown, and above on head same color; the edges of head white; a narrow median consisting of two dark lines; clypeus and eye-region reddish-brown; falces, palpi, mouth-parts, sternum reddish-brown; upper surface of legs yellowish, thickly mottled with dark brown, distal joints darker. Abdomen dark brown, lighter around the anterior sides;

sides of dorsum darkest and separated into three parts by light cross lines; venter dark brown, somewhat reddish in the middle, spinnerets yellowish, reddish-brown at base. Cephalothorax higher in middle than in front; clypeus vertical; the four M. E. form a quadrangle as broad as high; the lower M. E. not smaller, and as far from each other as are the upper M. E. from each other, and nearer to the larger S. E. than to each other; eyes of upper row at about equal distances, and of nearly equal size. On both tibiae and metatarsi I and II two rows of five to six spines.

Rare.

*Xysticus transversus*, nov. sp. Plate III, figs. 6, 6a and 6b.

Total length	♀		8 mm.
Length of cephalothorax	3.5mm.	breadth	3.2mm.
Length of sternum	1.7mm.	breadth	1.2mm.
Length of femur I	3 mm.	tibia I	2 mm.
Length of femur IV	2.2mm.	tibia IV	1.6mm.
Distance between epigynum and spinnerets			2.7mm.

Cephalothorax light yellowish, with a dark reddish-brown band each side terminated by two black oblong spots; head reddish-brown, edge white, with a narrow median stripe terminated behind by a black spot; clypeus lighter than sides; base of hills of S. E. white; falces, palpi, mouth-parts, sternum and under side of legs light reddish-brown, spotted or striped with darker brown, legs above light reddish-brown with darker spots; a white stripe on femur, patella and tibia I and II. Abdomen brown above, white on posterior sides, and dark brown on venter; spinnerets white with a dark band at base; the brown of dorsum darker toward the apex, and here separated on each side by a few white cross lines into almost black quadrangles. Cephalothorax much higher in middle than in front, widest in middle; clypeus vertical; eyes in two rows about equally curved; the four M. E. form a quadrangle wider than high; the lower M. E. as far from each other as are the upper M. E. from each other; the lower M. E. farther from each other than from the very much larger S. E.; the eyes of the upper row at about equal distances from each other; the upper M. E. somewhat larger than the lower M. E. and smaller than the upper S. E.; abdomen rounded, widest caudad of middle; on metatarsi I and II two rows of four to five spines, on tibiae I and II two rows of three to four spines.

Not uncommon, Sept. What I take to be the male is smaller 4mm. long; the markings and color similar but brighter; palpus as figured.

**Xysticus lentus**, nov. sp. Plate II, fig. 67.

Total length	♂	4.5mm.
Length of femur I	3.8mm.	tibia I 2.2mm.

Cephalothorax as broad as long and shorter than femur I.

Cephalothorax reddish-brown on sides; with a light stripe in middle above, a darker somewhat triangular area in front part of this light stripe terminated behind by a black triangle; a light band connecting the S. E.; clypeus and mandibles reddish-brown; sternum pale, with many small brown dots; coxæ lineated with brown; underside of legs pale, with a narrow brown stripe and numerous brown dots; above with darker blotches; metatarsi and tarsi pale. Abdomen brown above, with small white and dark brown transverse spots on hinder part; edge of abdomen with a white line; venter creased with white and brown. The M. E. equal and form a square; lower M. E. nearer to the larger S. E. than to each other, eyes of the upper row at about equal distances. Two rows of four to six spines on under side of tibiæ and metatarsi I and II. Male palpi with the two horny claws projecting from the center as in *X. triguttatus* and *X. discursans*.

Two males.

**Xysticus triguttatus** Keys.

Several males; one has one of the upper M. E. only about one-sixth the size of the other.

**Xysticus nervosus**, nov. sp. Plate III, figs. 8 and 8a. Plate IV, fig. 84.

Total length	♀	7 mm.
Length of cephalothorax	3.2mm.	breadth 3.1mm.
Length of sternum	2 mm.	breadth 1.5mm.
Length of femur I	3.2mm.	tibia I 2.5mm.
Length of femur IV	2.5mm.	tibia IV 1.8mm.
Distance between epigynum and spinnerets		2 mm.

Cephalothorax light yellowish, sides mottled and veined with reddish-brown; a narrow dark-edged stripe on head terminated behind by a reddish point; clypeus reddish-brown, in one case a light stripe between the two rows of eyes; falces yellowish, darker toward the base; mouth-parts, sternum, under side of coxæ, femora and palpi light yellow, palpi darker above, rest of legs yellowish-brown, spotted with brown, and with tibia and metatarsi I and II

darker toward the tip. Abdomen reddish-brown with many faint white spots; sides and venter reddish-brown; spinnerets light yellow. Cephalothorax much higher in middle than in front; widest at middle; clypeus vertical; eyes in two curved rows; the eyes of the upper row at about equal distances, and about equal in size; the M. E. of the lower row, about as close to each other as to the much larger S. E.; the four M. E. make a quadrangle much wider than high; the lower M. E. smaller and slightly closer to each other than the upper M. E.; abdomen rounded; two rows of spines on tibiae and metatarsi I and II, five to seven spines in each row; epigynum consists of a cavity wider than long, somewhat triangular in outline, divided by a low septum.

Total length	♂		5 mm.
Length of cephalothorax	2.4mm.	breadth	2.4mm.
Length of sternum	1.1mm.	breadth	1 mm.
Length of femur I	3.4mm.	tibia I	3 mm.
Length of femur IV	2.1mm.	tibia IV	1.6mm.

Cephalothorax and appendages as in the ♀; abdomen yellowish-brown, venter lighter; three pairs of elongate reddish-brown spots on caudal part of dorsum; a white band on the cephalic edge of each spot; eyes as in the ♀; abdomen longer in proportion to size than in ♀.

Not uncommon in meadows. Sept.; taken in copulation.

*Xysticus formosus*, nov. sp. Plate III, fig. 9.

Total length	♀		6.4mm.
Length of cephalothorax	2.8mm.	breadth	2.8mm.
Length of sternum	1.4mm.	breadth	1 mm.
Length of femur I	3 mm.	tibia I	2 mm.
Length of femur IV	2 mm.	tibia IV	1.3mm.
Distance between epigynum and spinnerets			2 mm.

Cephalothorax yellow-brown, darkest on head, with a median light line; sides reddish-brown terminated behind by a darker brown spot; margin nearly white; clypeus yellow-brown; base of hills of S. E. whitish; mandibles and palpi reddish-brown; legs darker red-brown, base of femora lighter, tarsus darkest; sternum yellowish, darker on sides; venter whitish, sides obliquely striped with brown; spinnerets reddish, dorsum white, with four pair of large triangular spots brown, somewhat connected with each other leaving a median serrated white stripe; basal spots largest; quadrangle of M. E. broader than high; four M. E. equally large; upper S. E. larger than upper M. E. and a little smaller than lower

S. E., which are very much larger than lower M. E.; eyes of upper row at about equal distances, lower row with M. E. closer to S. E. than to each other; four pairs of spines on tibia I; four to five pairs on metatarsus I; three pairs on tibia II; four pairs on metatarsus II.

Rare, two specimens; one from woods west of Varna in March.

**Xysticus limbatus** Keys.

Two males.

**Xysticus quadrilineatus** Keys. Plate III, fig. 10.

Infrequent.

**Xysticus gulosus** Keys. Plate III, figs. 7 and 7a.

Infrequent, Six Mile Creek, Sept.

**Xysticus maculatus** Keys.

Not uncommon, Sept. This may not be this species; if not it is new.

**Oxyptila georgiana** Keys. Plate III, fig. 11.

Not uncommon, Inlet Marsh, Oct.

**Oxyptila conspurcata** Thor. Plate III, fig. 12.

Rare, Fall Creek in woods west of Varna, under leaves in March.

**Coriarachne versicolor** Keys. Plate III, fig. 13.

Common, under bark in winter.

**Misumena rosea** Keys. Plate III, figs. 15, 15a.

Several specimens.

**Misumena georgiana** Keys.

One specimen.

**Misumena foliata**, nov. sp. Plate III, figs. 17, 17a. Plate II, fig. 37.

Total length	♀		5. mm.
Length of cephalothorax	2. mm.	breadth	2. mm.
Length of sternum	1. mm.	breadth	8. mm.
Length of femur I	2.3mm.	tibia I	1.8mm.
Length of femur IV	1.2mm.	tibia IV	9. mm.
Distance between epigynum and spinnerets			1.8mm.

Cephalothorax white or slightly yellowish, with a light brown band each side not reaching to caudal margin, the cephalic ends connected through the eye-region by a broad reddish band, that frequently covers the whole clypeus; eyes surrounded by white; mouth-parts white with black hairs; sternum white. Abdomen whitish, a red horizontal and two oblique bands each side; the

latter often faint; on front of dorsum a red spot; caudal half of dorsum with two red stripes converging to meet just above the spinnerets; venter and spinnerets light, the latter sometimes with a red spot at base. Markings on dorsum vary in quantity; sometimes the red spot on front of dorsum is connected with the two bands behind; sometimes the red bands are so wide that the dorsum appears red with four white bands. Legs whitish, the metatarsi I and II usually a little darker; tibia I and II frequently with two red bands. Front of cephalothorax as high as in middle; widest in middle; lower row of eyes more curved than upper; upper row of equal size; M. E. slightly nearer each other than to the S. E.; lower row about of the same size and at equal distances; the four M. E. form a quadrangle just as broad as high; abdomen widest a little caudad of middle; sternum heart-shaped, almost as wide in front as in middle; body and legs covered with bristles arising from reddish punctures; two rows of spines on tibiae I and II, two to four spines in each row; two rows of five to six spines on metatarsi I and II.

Total length	♂		4 mm.
Length of cephalothorax	1.8mm.	breadth	1.75mm.
Length of sternum	.9mm.	breadth	.75mm.
Length of femur I	2 mm.	tibia I	1.8 mm.
Length of femur IV	1.1mm.	tibia IV	.8 mm.

Markings similar to the ♀, a little brighter; the femur I and II with prominent red spots, patella and tibiae I and II with red bands.

Common, Sept., Oct.

*Misumena vatia* Clerck.

Common, May and Sept.

*Misumena placida*, nov. sp.

Total length	♀ juv.		4.8mm.
Length of cephalothorax	.2mm.	breadth	1.9mm.
Length of sternum	1 mm.	breadth	.75mm.
Length of femur I	2.5mm.	tibia I	1.8mm.
Length of femur IV	1 mm.	tibia IV	.6mm.
Distance between epigynum and spinnerets			1.4mm.

Cephalothorax light yellow, with a band each side of reddish-yellow, reaching from the anterior margin and not quite to the posterior; at end of head a small projection entad from each band; eye-region whitish; clypeus a little reddish; legs a light gray-yellow, distal joints a little redder. Abdomen a gray-white above and below; sternum and mouth-parts white; abdomen with many red-



dish punctures, each supporting a blackish hair. Area occupied by M. E. as long as broad, a little broader behind; eyes of upper row of equal size, and at about equal distances; the lower M. E. equal the upper M. E. and are smaller than the lower S. E., to which they are no nearer than to each other; abdomen pointed behind; two rows of four to five spines on tibia I and II, two rows of six to seven spines on metatarsi I and II.

One young specimen.

**Runcinia aleatorius** Hentz. Plate III, figs. 18 and 18a.

*Thomisus aleatorius* Hentz ♂.

*Runcinia brendelli* Keys.

Two females, one with abdomen white, the other with abdomen yellow. Aug., on the campus.

**Tmarsus caudatus** Hentz.

Not uncommon in Sept., on trees and fences.

#### Philodrominæ.

**Tibellus oblongus** Walck.

Common in sphagnum bogs, May.

**Philodromus vulgaris** Hentz. Plate III, figs. 23 and 23a.

Common.

**Philodromus praelustris** Keys. Plate III, fig. 19.

What I take to be this species is not very common; one specimen was taken in a house, Oct.

**Philodromus signifer**, nov. sp. Plate III, fig. 20.

Total length                              ♀ juv.                              5mm.

Cephalothorax white or yellowish, dark brown each side; clypeus light, a brown band extending through the lower row of eyes and ending in the S. E. of the upper row, here enlarged and extending around the upper M. E.; between the upper M. E. arises a short median brown line, extending a short distance caudad; a little removed from the caudal end each side is a small brown puncture; legs white with brown markings; several small spots on coxæ; a band at middle and end of femora; patella suffused with brown; tibia with a band at each end and some small spots between; metatarsus and tarsus with spots, the latter often dirty white; palpi white with brown spots; mandibles yellowish-white with a few brown marks at base; mouth-parts, sternum and venter white, lip a little darker; spinnerets yellowish white. Abdomen white with a dark

brown stripe around each side, not meeting either in front or behind; above a lighter brown cloud covers nearly the whole dorsum; on the anterior part is left two white stripes, which meet at about the middle of the abdomen; behind this a few white spots; at about the middle of the length of each white stripe is a brown puncture. Cephalothorax widest behind the middle, truncate behind and angles rounded; the clypeus but slightly oblique and rounded; eyes all about equal; all M. E. nearer to S. E. than to each other; the upper M. E. nearly as far apart as the lower S. E.; the two S. E. and one upper M. E. form an equilateral triangle; S. E. on tubercles; sternum truncate in front and behind; extending between hind coxæ; abdomen widest behind the middle; base slightly emarginate; probably next to last moult. Male young; same size but legs longer; same coloration except legs with more brown.

Not uncommon in woods, under bark in winter.

*Philodromus gracilis*, nov. sp. Plate III, fig. 21.

Total length	♀		6·8mm.
Length of cephalothorax	3· mm.	breadth	3· mm.
Length of sternum	1·9mm.	breadth	1·5mm.
Length of femur I	3·1mm.	tibia I	2·7mm.
Length of femur IV	3·6mm.	tibia IV	2·6mm.
Distance between epigynum and spinnerets			2·3mm.

Cephalothorax yellowish-brown, darker brown on sides; clypeus yellowish; falcæ yellow; lip brown; maxillæ and palpi yellow; sternum light yellow; femora and coxæ light yellow, spotted with brown; other joints darker, with brown spots; venter light; epigynum darker; dorsum of abdomen brown, with many small white spots, larger toward the base; near caudal end a few short, narrow, curved, light cross-bands, best seen when wet. Cephalothorax not much higher in middle than in front; upper row of eyes nearly straight; lower row curved; the four M. E. make a quadrangle wider behind than high, and wider behind than in front; eyes all of nearly equal size; the upper M. E. nearer to S. E. than to each other; the lower M. E. also nearer S. E. than to each other; clypeus nearly vertical, a little convex; abdomen narrower than cephalothorax; widest a little behind the middle; basal edge straight, as are also the anterior sides; hind angle acute; two rows of three spines each on both tibiæ and metatarsi I and II; epigynum consists of a cavity broader than long, a club-shaped body lies across it.

Two specimens, one from Buttermilk Creek, March.

*Philodromus unicolor*, nov. sp. Plate III, fig. 22.

Total length	♀		4.2mm.
Length of cephalothorax	1.75mm.	breadth	1.8mm.
Length of sternum	1.1 mm.	breadth	1. mm.
Length of femur I	2.1 mm.	tibia I	1.9mm.
Length of femur IV	2. mm.	tibia IV	1.3mm.
Distance between epigynum and spinnerets			2. mm.

Cephalothorax and abdomen gray above, the former with a few brown stripes; legs light gray above, mottled with brown; falces and lip gray; maxillæ lighter; sternum white; legs whitish on under side; palpi gray above, light beneath, black at tip; venter whitish; spinnerets yellowish; epigynum reddish. Cephalothorax flat; widest near caudal end; clypeus a little oblique; eyes about equal; M. E. of both rows nearer S. E. than to each other; the four M. E. make a quadrangle wider behind than high, and twice as wide behind as in front; abdomen as wide as cephalothorax; hind angle slightly acute; three pairs of spines on under side of both tibiæ and metatarsi I and II.

Rare, Sept., on pavement.

*Philodromus ornatus*, nov. sp. Plate III, figs. 24 and 24a.

Total length	♀		4.5mm.
Length of cephalothorax	1.5 mm.	breadth	1.6mm.
Length of sternum	.95mm.	breadth	.9mm.
Length of femur I	1.8 mm.	tibia I	1.4mm.
Length of femur IV	1.9 mm.	tibia IV	1.1mm.
Distance between epigynum and spinnerets			1.75mm.

Cephalothorax yellowish-white, sides brown; clypeus and eye-region yellowish-white; upper edge of side stripes straight and parallel to each other, falces greenish-yellow; mouth-parts and sternum white; legs and palpi white, distal joints darker, with scattered dark markings. Abdomen above white; venter dirty white; sides black; at the middle, an angular projection of the black of the side extends into the white above; toward the apex of the white above some faint dark chevrons; under spinnerets yellow, upper ones dark; epigynum dark. Cephalothorax and spines as usual; abdomen one and one half times as wide as cephalothorax; hind angle right angled; eyes about equal in size; all except lower M. E. on prominent white hills; M. E. of both rows nearer S. E. than each other; the four M. E. make a quadrangle wider behind, both than in front and high; sternum sharp pointed behind not prolonged between the hind coxæ.

Two specimens.

*Philodromus placidus*, nov. sp. Plate III, figs. 25 and 25a.

Total length	♀		3·5mm.
Length of cephalothorax	1·5 mm.	breadth	1·4mm.
Length of sternum	1· mm.	breadth	·9mm.
Length of femur I	1·95mm.	tibia I	1·5mm.
Length of femur IV	1·9 mm.	tibia IV	1·2mm.
Distance between epigynum and spinnerets			1· mm.

Cephalothorax white or dirty white; the sides dark reddish-brown, the inner margin of the dark sides not quite parallel; just behind each upper M. E. a short brownish stripe; clypeus dirty yellowish white; legs white with dark markings; one on upper side of coxæ, one at middle and one at end of femora, a few fainter beyond; mandibles dirty yellow-white; mouth-parts nearly white; sternum white. Abdomen and venter white or dirty white; spinnerets reddish; epigynum red-brown; on each side of the abdomen is a dark brown stripe which do not meet in front, but suddenly narrowing at the middle of their length and growing fainter behind, meet above the spinnerets; on anterior dorsum a light brown spear-shaped mark; at each side of the middle a little brown puncture; on each side of the end a larger oblique impression; behind these some faint light brown curved cross-bands. Cephalothorax widest behind the middle; truncate behind, hind angles rounded; clypeus oblique; upper row of eyes equal in size and M. E. nearer S. E. than to each other; lower M. E. smaller and nearer S. E. than to each other; the upper M. E. nearer the lower S. E. than to any other eyes, and nearly as far apart as are the lower S. E.; the upper S. E. on prominent tubercles; sternum truncate in front; prolonged between the hind coxæ, widened behind and truncate; abdomen emarginate at base, widest slightly behind the middle.

Several specimens.

*Philodromus minutus*, nov. sp. Plate V, fig. 85.

Total length	♀		3· mm.
Length of cephalothorax	1· mm.	breadth	1· mm.
Length of sternum	·8 mm.	breadth	·6 mm.
Length of femur I	1·05mm.	tibia I	·95mm.
Length of femur IV	1· mm.	tibia IV	·6 mm.
Distance between epigynum and spinnerets			1·1 mm.

Cephalothorax white on yellowish-white, the sides reddish-brown; legs white or yellowish-white with a few scattered dark markings; clypeus yellowish; abdomen dirty white or yellowish; darker or brown on the anterior sides, blackish near the apex on each side;

none of the brown extends over into the white dorsum as in *P. ornatus*; above on dorsum three somewhat broad brown stripes, one mesal ending at the middle of the abdomen; behind this a broader one on each side extending two-thirds of the way to the spinnerets; falces, mouth-parts and sternum yellowish-gray; venter gray or white; spinnerets darker at tips; epigynum reddish-brown, eyes on white hills. Abdomen oval, almost twice as long as wide, not much wider than cephalothorax; eyes equal, about as usual; sternum prolonged between the hind coxæ; anterior angles sharp; sides pointed between the coxæ II and III; a series of black dots around the edge.

Uncommon.

*Philodromus minusculus*, nov. sp. Plate II, fig. 39.

Total length	♀	2.9mm.
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Cephalothorax white; brown on each side; abdomen white above, black around the sides; legs light with faint darker bands toward the tip; sternum broad, extending between the hind coxæ, concave in front; abdomen flat; venter light, falces reddish; mouth-parts a little yellowish; the black along the sides is continuous while in *P. minutus* it is interrupted in the middle. Close to *P. minutus*, but no stripes on dorsum, the white much clearer while in *P. minutus* the white is yellowish.

One specimen.

*Philodromus exilis*, nov. sp. Plate II, fig. 40.

Total length	♀	3.8mm.
Length of cephalothorax	1.4mm.	breadth 1.4mm.
Length of abdomen	2.4mm.	breadth 1.2mm.
Length of sternum	.8mm.	breadth .6mm.

Cephalothorax light yellow in middle, sides thickly veined with yellow-brown; clypeus yellowish, mandibles and palpi nearly white; sternum whitish, with little punctures most numerous on the sides, of a lavender color; lung-plates white; epigynum reddish-yellow; spinnerets yellowish; venter whitish with lavender punctures, growing more numerous on the sides and behind; dorsum and upper sides of abdomen white washed with lavender, darkest on the sides and behind; the plan of markings is similar to *P. rufus*, a faint median stripe on front of dorsum; behind this two darker stripes which are indistinctly connected with the side stripe; coxæ yellowish; legs all broken off; the sternum is much narrower than

in *P. rufus* and projects farther behind; eyes similar to *P. rufus* but the S. E. are farther from each other than in that species.

One specimen from Freeville, May.

*Philodromus rufus* Walek. Plate III, fig. 26.

Common.

*Philodromus laticeps* Keys.

One specimen, ♂ probably this species.

*Philodromus aureolus* Clerck.

Three young specimens are probably this species.

#### LYCOSIDÆ.

*Lycosa frondicola* Em.

Common among dead leaves in gorges.

*Lycosa nidicola* Em.

Common among dead leaves in gorges.

*Lycosa kochi* Keys.

Not uncommon among dead leaves.

*Lycosa communis* Em.

Frequent under stones, South Hill, Six Mile Creek, McKinney's Twin Glens.

*Lycosa nigroventris* Em.

Rare, Summit Marsh, Aug.

*Lycosa pratensis* Em.

Common in fields.

*Lycosa similis*, nov. sp. Plate II, fig. 30.

Total length	♀		10·8mm.
Length of cephalothorax	4·9mm.	breadth	3·7mm.
Length of abdomen	6 mm.	breadth	3·8mm.
Length of sternum	2 mm.	breadth	1·5mm.
Length of femur I	3·2mm.	tibia I	2·5mm.
Length of femur IV	4·1mm.	tibia IV	3 mm.

Cephalothorax yellow; eyes surrounded by black; a brown stripe each side, and a brown margin; the dorsal light stripe is suddenly narrowed at caudal part of head; the anterior portion contains a short dark stripe each side; mandibles reddish-yellow; mouth-parts and sternum yellow, the latter with a faint darker spot in middle; legs and palpi yellow, no darker markings, finely black haired and black spined; venter grayish-yellow; epigynum reddish, very small;

spinnerets like venter; dorsum dark brownish-yellow; a black spear-shaped outline on front part and some cross lines behind this; some small dark spots on rest of dorsum; eyes as usual.

Occasional in fields near Indian Spring.

*Lycosa rufiventris*, nov. sp. Plate III, fig. 35.

Total length	♀		12 mm.
Length of cephalothorax	5.2mm.	breadth	3.5mm.
Length of abdomen	7 mm.	breadth	4.4mm.
Length of sternum	2.5mm.	breadth	1.8mm.
Length of femur I	3.1mm.	tibia I	2.4mm.
Length of femur IV	3.9mm.	tibia IV	3 mm.

Small female about 10mm. long.

Cephalothorax red-brown; eye-region blackish; a light median stripe, widest in front and gradually tapering toward the hind margin; a light stripe each side somewhat above the margin, occasionally indistinct; mandibles darker red-brown; mouth-parts red-brown, lighter at tips; sternum red-brown; legs and palpi a little lighter, sometimes with very indistinct darker spots or rings; abdomen above and below red-brown like sternum; epigynum surrounded by jet black hairs; no definite plan of markings, only a few scattered small darker spots on dorsum which are often indistinct; abdomen covered with yellow-brown hairs. First row of eyes not quite as wide as second; dorsal eyes farther from each other than are the second row of eyes, and much closer to them than to each other; the epigynum is much like that of *Trochosa avara*, but the species is much larger and no sign of spots on the venter and scarcely a trace of them on dorsum; it is different from what I have called *T. avara*.

Uncommon, Fall Creek, Jan.

*Lycosa humilis*, nov. sp. Plate III, fig. 36.

Total length	♀		10.5mm.
Length of cephalothorax	5 mm.	breadth	3.1mm.
Length of abdomen	6 mm.	breadth	3 mm.
Length of sternum	2.5mm.	breadth	1.8mm.
Length of femur I	3.4mm.	tibia I	2.5mm.
Length of femur IV	4.4mm.	tibia IV	4 mm.

Cephalothorax red-brown, darkest on upper sides but not a distinct stripe; eye-region nearly black; mandibles and sternum red-brown; legs light red-brown to yellow-brown, darkest on front pairs, no markings on them; palpi like legs; abdomen brown, no stripe; venter lighter brown; maxillæ scarcely tipped with white;

spinnerets like venter; epigynum reddish; legs black haired and spined; abdomen with long black and white hairs and shorter yellowish ones; sternum with stiff black hairs; epigynum surrounded by white hairs; first row of eyes shorter than second; eyes of second row more than their diameter apart, and not larger than dorsal eyes.

One specimen, Round Marshes, May.

*Lycosa avara* Keys.

*Trochosa avara* Keys.

Uncommon, Six Mile Creek, March.

*Lycosa ocreata* Hentz.

Infrequent, Six Mile Creek, Fall Creek, Sept. and Oct.

*Lycosa polita* Em.

One specimen.

*Lycosa scutulata* Hentz.

One specimen.

*Lycosa vulpina* Em.

Two specimens, Six Mile Creek, in holes.

*Lycosa crudelis*, nov. sp. Plate III, fig. 37.

Total length	♀		15 mm.
Length of cephalothorax	7.9mm.	breadth	5.6mm.
Length of abdomen	8.1mm.	breadth	5.7mm.
Length of sternum	3.9mm.	breadth	3 mm.
Length of femur I	5.2mm.	tibia I	3.6mm.
Length of femur IV	6 mm.	tibia IV	4.7mm.

Cephalothorax red-brown, darker in eye-region; with three light stripes, the median one arising from between the second row of eyes as a fine line, gradually widening and reaching the hind margin, widest at dorsal groove; the side stripes more than their width above the edge, and scarcely as wide as the dorsal stripe; clypeus dark; mandibles nearly black; mouth-parts black, with tips light; sternum jet black with many black hairs; under side of coxæ blackish with black hairs; femora yellow-brown; hinder ones with darker spots; other joints yellow-brown, hinder ones with darker rings, on front ones the rings are scarcely apparent; legs with many black hairs; palpi yellow-brown, tip of last joint darker; abdomen black, clothed with yellow pubescence; a black spear-shaped mark reaching to the middle of the abdomen; on sides yellow and black hairs tend to form narrow lines; venter dark with



black and yellow hairs, which form four yellow stripes; the two middle ones do not reach beyond the middle of the abdomen, the others do; epigynum reddish, surrounded by black hairs; spinnerets brown; dorsal eyes much farther from each other than are the eyes of the second row from each other.

One specimen.

*Lycosa immaculata*, nov. sp. Plate V, fig. 38.

Total length	♀		14· mm.
Length of cephalothorax	6· mm.	breadth	4·9mm.
Length of abdomen	8· mm.	breadth	5· mm.
Length of sternum	3· mm.	breadth	2·5mm.
Length of femur I	4·9mm.	tibia I	3·3mm.
Length of femur IV	5· mm.	tibia IV	3·8mm.

Cephalothorax red-brown, with a narrow light stripe arising behind the second row of eyes and reaching the hind margin, slightly wider in the middle; on the sides a broader indistinct light stripe; mandibles red-brown; mouth-parts red-brown, lighter at tips; cephalic half of sternum dark brown, caudal half yellowish; legs yellowish, coxæ with black stripes; femora some brownish, but without bands; no bands on other joints; thickly black haired; abdomen may not be normal, dark gray, brownish toward the apex; when wet, a faint black spear-shaped outline on basal half; venter lighter yellowish; epigynum small and reddish; spinnerets reddish-yellow; palpi reddish-yellow; first row of eyes about as wide as second.

One specimen.

*Lycosa exitiosa*, nov. sp. Plate I, fig. 39.

Total length	large ♂		17· mm.
Length of cephalothorax	9·5mm.	breadth	7· mm.
Length of abdomen	8·5mm.	breadth	5·4mm.
Length of sternum	4·5mm.	breadth	4· mm.
Length of femur I	8· mm.	tibia I	7· mm.
Length of femur IV	9·3mm.	tibia IV	8· mm.

Small ♂ is but 14·5 mm. long.

Cephalothorax yellow or reddish-yellow, with a dark stripe each side, leaving a narrow dorsal stripe of light, which expands to surround the dorsal groove; the extreme margin also dark; a few small dark spots on the light side stripes; mandibles black with light hair; mouth-parts brownish with black hair; sternum yellow or reddish, with a faint darker central mark, and with black hairs; legs yellow or reddish; the metatarsus and tarsus nearly black; other joints with dark marks and rings, most distinct on the tibia;

under side of coxæ with a large brownish-black spot; tarsus of palpus black, rest of palpus yellowish; abdomen dark brown above, light beneath; venter spotted with many small black dots, sometimes forming a band just behind the lung slits; these small black spots also on dorsum, but not so prominent; also a spear-shaped black outline on front of dorsum; spinnerets brownish-yellow; legs with many black spines.

Several specimens.

*Lycosa oblonga*, nov. sp. Plate III, fig. 40.

Total length	♀		20 mm.
Length of cephalothorax	9 mm.	breadth	6.8mm.
Length of abdomen	12 mm.	breadth	7.4mm.
Length of sternum	4.6mm.	breadth	3.5mm.
Length of femur I	7 mm.	tibia I	5 mm.
Length of femur IV	7 mm.	tibia IV	5.5mm.

Cephalothorax dark brown, with a narrow light stripe arising between the second row of eyes, passing caudad, widening to surround the dorsal groove, then narrowing and reaching the hind margin. A few light spots on the lower sides but not forming a stripe; mandibles jet black; mouth-parts and sternum black; legs and palpi black, with yellowish markings on the femora, partly rings and partly spots; on the tibia and patella a ring; other joints not distinctly marked. Abdomen dark brown, thickly covered with short golden-yellow pubescence, on the sides and venter leaving many small spots of black hairs; above no markings; the hairs are brightest toward the apex of the abdomen; spinnerets dark brown; region of epigynum with many black hairs; a spot of yellow hairs on each lung-plate; a band of black just caudad of the lung-slits. First row of eyes almost as wide as second; dorsal eyes about as those of second row and farther from each other than the latter; epigynum very small.

One specimen.

*Pardosa lapidicina* Em.

Common in gorges among shale.

*Pardosa pallida* Em.

Uncommon, Six Mile Creek, Fall Creek, Sept.

*Pardosa annulata*, nov. sp. Plate I, fig. 41.

Total length	♀		5 mm.
Length of cephalothorax	2.4mm.	breadth	2 mm.
Length of abdomen	2.6mm.	breadth	1.7mm.

Length of sternum	1·4mm.	breadth	1· mm.
Length of femur I	2· mm.	tibia I	1·4mm.
Length of femur IV	3· mm.	tibia IV	2· mm.

Cephalothorax with a broad reddish-yellow stripe each side, above this a broader dark stripe with irregular edges; extreme margin of cephalothorax somewhat darkened; on dorsum a reddish-yellow stripe, widest in front; constricted at end of head and then tapering caudad; eye-region black; clypeus reddish-yellow; mandibles similar; legs and palpi light reddish-yellow, ringed with black, rings on femora not always complete; sternum yellowish, often with a black stripe extending from the caudal end toward the middle; sometimes a few other black marks; on front of dorsum a triangular reddish-yellow stripe not reaching quite to the middle of the abdomen; rest of dorsum is a brown network, yellow between the meshes; the network looks like cross-lines on the meson but at sides, irregular; venter lighter; base yellowish, beyond brownish; spinnerets yellowish; front margin of epigynum raised and dark colored, the hind part also dark colored, the intermediate part so light as to be hardly distinguishable.

Uncommon.

*Pardosa venusta*, nov. sp. Plate I, figs. 42, 42a.

Length	♀		5·8mm.
Length of cephalothorax	2·7mm.	breadth	1·9mm.
Length of abdomen	3·1mm.	breadth	1·9mm.

Cephalothorax dark brown, with a few indistinct yellowish spots near the sides, eye-region black; a broad central yellowish stripe, contracted in front of dorsal groove, then enlarging to surround the groove and again contracting behind it, and reaching the hind margin; mandibles yellowish with a brownish spot near base; legs and palpi pale with darker rings; sternum black; venter grayish; spinnerets light; sides and dorsum darker, almost black, with many pale yellowish spots; a median basal stripe pointed behind, not quite reaching the middle of dorsum, yellowish; a spot each side of this at base yellowish; at the hind end of this stripe on each side two yellow spots, the hind pair containing a black dot; behind this two pairs of similar spots, united on meson, each containing a black dot; just above the spinnerets several narrow cross-bands of yellow; each side of the median markings, there are other yellowish spots, some quite large, making the abdomen look like a *Celotes*;

epigynum quite small ; in what I take to be a young ♂ the abdomen is narrower, but the markings the same.

Several specimens.

*Pardosa brunnea* Em.

Two specimens.

*Pardosa gracilis*, nov. sp. Plate I, fig. 43. Plate I, fig. 50.

Total length	♀		8 mm.
Length of cephalothorax	4 mm.	breadth	3 mm.
Length of abdomen	4.4mm.	breadth	2.9mm.
Length of sternum	2 mm.	breadth	1.4mm.
Length of femur I	3.3mm.	tibia I	2.5mm.
Length of femur IV	3.5mm.	tibia IV	3 mm.

Cephalothorax dark red-brown with a median light stripe gradually tapering behind ; eye-region blackish ; mandibles and sternum red-brown ; mouth-parts a little lighter ; legs and palpi red-brown, with dark spots and rings more distinct on hind pair ; abdomen above and below red-brown, with light brown hair ; markings not distinct ; a spear-shaped blackish outline on front part of dorsum ; behind this a few distinct cross-lines, and some small darker spots each side ; epigynum reddish ; dorsal eyes almost as close to each other as to the eyes of second row. In what I take to be the ♂ the head is somewhat narrower at the cephalic end ; length 7.5 mm. ; colors similar to ♀.

Not uncommon.

*Pardosa albopatella* Em.

Not uncommon, Six Mile Creek.

*Pardosa nigropalpis* Em.

Several specimens.

*Pardosa montana* Em.

Two specimens probably this species.

*Pardosa mæsta*, nov. sp. Plate III, fig. 44.

Total length	♀		5.1mm.
Length of cephalothorax	2.5mm.	breadth	2 mm.
Length of abdomen	2.7mm.	breadth	1.9mm.
Length of sternum	1.4mm.	breadth	1 mm.
Length of femur I	2.1mm.	tibia I	1.5mm.
Length of femur IV	2.9mm.	tibia IV	2.2mm.

Cephalothorax almost uniform reddish-brown, somewhat lighter in the middle, head nearly black ; clypeus and mandibles yellowish ;

sternum black ; legs yellowish, redder toward the tips, no distinct rings, but some faint darker markings on side of femora ; palpi yellowish ; dorsum of abdomen nearly black, a little reddish tinge ; venter reddish-brown with a narrow black line each side, and a broader black stripe in the middle ; very slight trace if any of lighter markings on the dorsum ; dorsal eyes not as close together as in *P. annulata* or *P. pallida*.

One specimen.

*Pardosa obsoleta*, nov. sp. Plate III, fig. 45.

Length	♀	5·3mm.
Length of cephalothorax	2·3mm.	breadth 2· mm.
Length of abdomen	3· mm.	breadth 1·9mm.

A larger specimen, apparently the same species is 7 mm. long. Cephalothorax dark brown ; eye-region black ; with a broad median rufous stripe, much constricted in front of dorsal groove, then enlarging to surround the groove and then becoming smaller ; mandibles reddish-yellow ; sternum black ; legs and palpi yellowish, with darker incomplete rings, these only apparent on the upper surface of the legs ; epigynum reddish ; venter grayish ; sides and dorsum nearly black, with faint, apparently irregular blotches of yellowish ; the basal stripe not seen ; somewhat similar to *P. montana* but the legs paler and less distinctly ringed ; all the markings are indistinct.

Two specimens.

*Pirata piratica* Clerck.

Uncommon.

*Pirata insularis* Em.

Not uncommon.

*Pirata montana* Em.

Uncommon.

*Pirata montanoides*, nov. sp. Plate I, fig. 46.

Total length	♀	3·7mm.
Length of cephalothorax	1·8 mm.	breadth 1·3mm.
Length of abdomen	1·9 mm.	breadth 1·3mm.
Length of sternum	·82mm.	breadth ·7mm.
Length of femur I	1·4 mm.	tibia I 1· mm.
Length of femur IV	1·7 mm.	tibia IV 1·3mm.

Cephalothorax yellow with a dark stripe each side, somewhat widest behind ; eyes surrounded by black ; a line each side, reaching

from dorsal groove toward the second row of eyes; mandibles, sternum, mouth-parts, legs and palpi yellow; legs in one specimen with indistinct darker rings; abdomen yellow above and below; epigynum reddish; spinnerets yellow; a small black mark on middle of venter; above on dorsum many irregular black spots which leave a central yellow stripe divided by dark cross-lines; very similar to *P. montana*; cephalothorax a little narrower than in that species; epigynum looks like two reddish spots.

Several specimens.

*Pirata agilis*, nov. sp. Plate I, fig. 47.

Total length	♀		4.5mm.
Length of cephalothorax	2.2mm.	breadth	1.6mm.
Length of abdomen	2.3mm.	breadth	1.7mm.
Length of sternum	1. mm.	breadth	.8mm.
Length of femur I	1.5mm.	tibia I	1.2mm.
Length of femur IV	2. mm.	tibia IV	1.7mm.

Cephalothorax brown, black around the eyes, a yellowish stripe in middle, widest at cephalic end, gradually tapering to the caudal margin; this encloses two lines which extend each side from the dorsal groove to eyes of the second row; no side stripes; mandibles yellowish; sternum yellow, with a dark margin; legs yellow with no markings, distal joints darker; abdomen brownish above and below; spinnerets yellowish, epigynum blackish; a light yellowish stripe above in middle of dorsum, very faint at base, and behind divided by several blackish cross-lines; legs with fine black hairs and long red-brown spines; epigynum appears as a short transverse dark spot.

Several specimens, Fall Creek, March.

*Pirata minuta* Em.

One specimen.

*Pirata exigua*, nov. sp. Plate I, fig. 48.

Total length	♀		3. mm.
Length of cephalothorax	1.4mm.	breadth	.9mm.
Length of abdomen	1.6mm.	breadth	.9mm.
Length of femur I	1. mm.	tibia I	.8mm.
Length of femur IV	1.9mm.	tibia IV	1.4mm.

Cephalothorax yellowish, with a black stripe each side, widest toward the caudal end; the extreme margins of cephalothorax also black; eye-region black; median groove black, from the cephalic end of which arises two stripes diverging toward the dorsal eyes; man-

dibles brownish-yellow; legs and palpi yellowish, some dark marks on femora; patella tipped with dark, and tibia with two rings; sternum yellowish with many small black dots; dorsum of abdomen black with many small yellow spots; venter yellowish, with a few black lines and spots; epigynum reddish; spinnerets greenish; upper ones darker; lobe of epigynum reddish, sides of lobe darker.

One specimen, Enfield Creek, Sept.

*Aulonia aurantica* Em.

One specimen.

*Ocyale undata* Hentz.

Common.

*Dolomedes tenebrosus* Hentz.

Common.

*Dolomedes urinator* Hentz.

One specimen. Six Mile Creek, Apr.

*Dolomedes sexpunctatus* Hentz.

Frequent on edge of streams.

*Dolomedes scriptus* Hentz.

Infrequent, Fall Creek, on edge of stream, Sept.

#### ATTIDÆ.

*Phidippus mystaceus* Hentz.

Common; in cases under stones in winter.

*Phidippus albomaculatus* Keys.

One specimen, female.

*Phidippus rauterbergii* Peck.

A few immature specimens agree very well with the description Fall Creek.

*Phidippus mccoookii* Peck. Plate IV, fig. 83.

One male 10 mm. long probably this species.

*Phidippus tripunctatus* Hentz.

Common.

*Phidippus cardinalis* Hentz.

Infrequent.

*Phidippus rufus* Hentz.

Common.

*Phidippus minutus* nov. sp. Plate V., figs. 27 and 27a.

Total length	♀		7.7mm.
Length of cephalothorax	3 mm.	breadth	2.6mm.
Length of abdomen	4.9mm.	breadth	2.9mm.
Leg formula	4-1-2-3.		

Cephalothorax and abdomen black, covered with golden yellow short hair, and scattered long black and white hairs; clypeus whitish yellow; mandibles dark, somewhat greenish iridescent; legs reddish with black rings; palpi yellowish, with whitish-yellow hairs; sternum dark-red brown with light hairs; venter red-brown on sides, with yellowish hairs, a broad central light stripe, limited each side by dark; epigynum and spinnerets reddish; dorsum with a band at base, losing itself on the sides; another oblique band on side; two rows of three spots on caudal part of dorsum, white. Second row of eyes not quite twice as far from dorsal as from lateral eyes; dorsal eyes very prominent; first pair of legs largest; tibia I with three strong black spines at tip; anterior coxæ separated by almost width of labium; sternum less than one and one-half times as long as broad.

One specimen.

*Philæus princeps* Peck. Plate II, fig. 32.

Three males which may belong to this species.

*Philæus militaris* Hentz.

Abundant.

*Dendryphantes capitatus* Hentz.

Abundant.

*Dendryphantes elegans* Hentz.

One male specimen.

*Dendryphantes flavus* Peck.

Not uncommon; under stones in cases during the winter.

*Dendryphantes flavipedes* Peck.

Three females, quite similar to the males; epigynum as on Plate II, fig. 33.

*Dendryphantes insignis*, nov. sp. Plate V, figs. 28 and 28a.

Total length	♀		4.6mm.
Length of cephalothorax	1.8mm.	breadth	1.3mm.
Length of abdomen	2.9mm.	breadth	1.8mm.
Leg formula	4-1-3-2.		



Cephalothorax red, with white pubescence and long scattered black hairs; eyes on a black band; clypeus with white hairs; falces reddish; palpi light, with white hairs; legs yellowish, with reddish at ends of joints, front legs darker; sternum red-brown. Abdomen whitish-yellow, with white pubescence and long black hairs; four red-brown spots each side on dorsum, more or less connected across the middle by chevrons, the basal ones connected by a curved line; a spot above apex red-brown; spinnerets and median stripe on venter red-brown; sides and rest of venter light; epigynum dark; sides with a faint trace of reddish oblique bands. Sternum broad, truncate in front; anterior coxæ separated by more than width of labium; first legs much the stoutest; first and second pairs of legs as in *D. flavipedes*.

Not uncommon.

*Dendryphantès ornatus*, nov. sp. Plate IV, fig. 29; Plate V, fig. 29.

Total length	♀		4.9mm.
Length of cephalothorax	1.8mm.	breadth	1.3mm.
Length of abdomen	3.1mm.	breadth	2. mm.
Leg formula	4-1-3-2.		

Cephalothorax reddish; eyes on black band; with short white pubescence and long scattered white and black hairs; clypeus with white hairs; mandibles reddish; sternum dark red-brown; legs and palpi yellowish, the femora of first pair more red-brown; legs distinctly ringed with red-brown, and with white pubescence and longer black hairs. Abdomen whitish-yellow, with short whitish pubescence and long white and a few black hairs; dorsum with red-brown bands more or less connected with an irregular central stripe; basal band horseshoe-shaped; three others behind it more straight; upper side white; lower side with a broad red-brown stripe; venter with a broad median red-brown stripe, constricted just in front of red-brown spinnerets, and then widened to surround them. First legs stoutest, but not so large as in some species; anterior coxæ separated by more than width of labium; sternum oblong; abdomen swollen with eggs.

One specimen.

*Dendryphantès exiguus*, nov. sp. Plate V, fig. 30.

Total length	♀		4.4mm.
Length of cephalothorax	1.8mm.	breadth	1.3mm.
Length of abdomen	2.7mm.	breadth	1.7mm.
Leg formula	4-1-3-2.		

Cephalothorax reddish, with reddish pubescence which has a faint greenish tinge, more green close to the eyes, on sides whiter; eyes on black spots; long black hairs scattered over surface; long white hairs on clypeus; mandibles reddish; palpi and legs yellowish, with short white hairs and longer black ones; no bands on legs, nor stripes; first pair more brownish, sternum light red with white hairs. Abdomen red-brown, with pubescence like cephalothorax, and scattered long black hairs; a white band at base and anterior sides; two rows of small white spots, those behind elongated obliquely; a dark spot behind each light one; two white spots on each side; venter with white pubescence and long black hairs; spinnerets light; epigynum dark. First legs stoutest; anterior coxæ separated by scarcely width of labium; sternum more contracted in front than in *D. insignis*.

One specimen.

**Attus palustris** Peck.

Not rare, Inlet Marsh, May; Freeville, Aug.

**Icius formosus**, nov. sp. Plate V, fig. 31.

Total length	♂		7 mm.
Length of cephalothorax	3 mm.	breadth	2 mm.
Length of abdomen	4.1 mm.	breadth	1.5 mm.
Leg formula	1-4-3-2.		

Cephalothorax dark red-brown; eye-region black, bordered behind by a white band; some patches of white near eyes, and a narrow stripe just above lower margin; rest of cephalothorax probably covered with yellowish, nearly hyaline short hairs; mandibles dark red-brown; palpi, first legs and sternum similar; other coxæ yellow; femora nearly black; other joints yellowish or reddish; many strong spines on upper side of all femora. Abdomen black, above with a basal white band of hairs, and several white spots along each side; rest probably covered with yellowish, hyaline hairs like cephalothorax; venter gray with white hairs and a central dark stripe. Anterior coxæ not separated by width of labium; posterior coxæ touching; second eyes half way between dorsal and lateral eyes; first legs longest and strongest; eye-region equally wide in front and behind; cephalothorax widest at middle; spinnerets black.

One specimen.

**Icius albovittatus** Keys.

Several males; not *Wala albovittata* Keys.

*Icius palmarum* Hentz.

One male; Fall Creek, Aug.

*Icius mitratus* Hentz.

Not uncommon, in cases on evergreen trees. Fall Creek, Oct.; Six Mile Creek, Sept.

*Icius hartii* Em. 1892. Plate V, fig. 32.*Icius mœstus*, nov. sp. Plate V, fig. 33.

Length	♂		5.1mm.
Length of cephalothorax	2.3mm.	breadth	1.8mm.
Length of abdomen	2.8mm.	breadth	1.5mm.

Cephalothorax reddish; eyes connected by a black stripe; whole cephalothorax probably clothed with white hairs; mandibles and mouth-parts red-brown; sternum nearly black; venter with a broad reddish median stripe, and light each side, clothed with white hairs; all except front coxæ yellow; these are reddish; femur I reddish, nearly black above; rest of leg I reddish, tarsus pale; base of patella pale; basal half of femora II, III and IV yellow like coxæ, rest dark red-brown; patella and tibia a little lighter, metatarsus and tarsus pale, the former with tip red-brown; claw blackish. Abdomen dark reddish above and on sides; badly rubbed; with a short basal whitish band; traces of yellowish spots on dorsum; two pairs near the apex are largest, forming incomplete chevrons; in front of them the spots more median. First leg much the stoutest; head projecting over base of mandibles; mandibles oblique; palpi red-brown; three pairs of large spines near tip of tibia I; and one pair at middle, and one at tip of metatarsus I.

One specimen.

*Icius elegans* Keys.

One young specimen, probably this species, Burdick's Glen, Sept.

*Eris octavus* Hentz.

One specimen.

*Eris nervosus* Peck.

One specimen.

*Hasarius hoyi* Peck.

One young specimen.

*Habrocestum latens*, nov. sp. Plate V, fig. 34.

Total length	♀		5. mm.
Length of cephalothorax	2.5mm.	breadth	1.9mm.
Length of abdomen	2.6mm.	breadth	1.8mm.

Cephalothorax yellow brown; eye-region covered with black, indented behind by the yellow-brown, with long black hairs, a few reddish hairs around eyes; clypeus with some long white hairs; legs yellowish, without markings, some black hairs and some shorter colored ones, often red or yellowish; sternum nearly white, with edges dark; mouth-parts, coxæ, and under side of femora nearly white; dorsum of abdomen very densely covered with somewhat long colored hairs, red, golden-yellow, and white, with three oblique elongate spots of black each side; long black hairs scattered over dorsum; venter dark gray with white hairs; epigynum dark; anterior coxæ separated by width of labium; sternum oblong, pointed behind; first leg stoutest.

Not uncommon.

**Habrocestum cæcatum** Hentz.

Uncommon, males; the spine on the tarsus of the palpus is larger and longer than in Peckham's figure.

**Habrocestum peregrinum** Peck.

Not uncommon; Fall Creek, Sept.

**Habrocestum splendens** Peck.

Frequent, Fall Creek, Aug. and Sept., Buttermilk Creek.

**Saitis pulex** Hentz.

Common.

**Astia vittata** Hentz.

Abundant.

**Astia vittata var. niger** Peck.

One specimen.

**Epiblemum scenicum** Clerck.

Common.

**Admestina wheelerii** Peck.

One female which is probably this species.

Total length	♀		4.3mm.
Length of cephalothorax	1.4mm.	breadth	.9mm.
Length of abdomen	2.9mm.	breadth	1.4mm.

Cephalothorax red-brown, nearly black on head; with white hairs, a few rusty hairs in the band connecting eyes; legs pale yellowish with black marks and rings; mandibles dark brown; abdomen gray with silvery spots, and a broad median dark brown serrated stripe; several small brown spots each side; spinnerets

project beyond the end of abdomen; pale above and brown beneath, a brown stripe on each lower side; venter with a few small brown spots mixed in with the silvery; epigynum brown; sternum brown with white hairs; abdomen with white hairs; cephalothorax low; quadrangle of eyes wider behind; second row of eyes half way between lateral and dorsal eyes; anterior M. E. very large; head overhanging the mandibles; abdomen swollen with eggs; broadest behind the middle; anterior coxæ nearly touching; posterior coxæ touching; sternum widest between coxæ II and III; legs short, first pair stoutest; epigynum as figured on Plate II, fig. 34.

One specimen.

***Marpusa familiaris* Hentz.**

Common.

***Marpusa rupicola* Hentz.** Plate IV, figs. 49 and 49a.

Total length	♀		10.4mm.
Length of cephalothorax	4.5mm.	breadth	3.5mm.
Length of abdomen	6 mm.	breadth	3 mm.

Male about same size, abdomen a little narrower.

Cephalothorax red-brown; eye-region black; hinder sides brownish, and a brownish angular cross-band behind, leaving only a yellow-brown spot on hind margin; mandibles red-brown; first leg yellow-brown, much darker at ends of joints; other legs more yellowish with indistinct darker rings; sternum yellowish; anterior coxæ separated, posterior ones touching; venter gray or yellowish; in female with a faint darker median stripe; epigynum reddish, as is also the region of the male openings; spinnerets light; dorsum and sides dark gray with a light central stripe, the posterior part of which is made up of chevrons, and contains a more or less distinct serrated narrow gray stripe; other light spots and lines are mixed in with the gray on the sides, especially in the ♂; body covered with white hairs; a cluster of stiff black bristles just below and behind the lateral eyes. Cephalothorax broad and low; eye-region a little broader in front than behind, more so in ♂ than in ♀; dorsal eyes look more dorsad than in *M. familiaris*.

Resembles the dry cliffs on which it is found; in Fall Creek and Six Mile Creek; three specimens; the first pair of legs of the ♂ is very stout and long; patella and tibia I measuring 5.5 mm.

*Homalattus cyaneus* Hentz.

One specimen.

*Neon nelli* Peck.

Not uncommon under leaves in gorges. In winter often attached to a little case.

*Zygoballus bettini* Peck.

Several specimens.

*Synemosyna formica* Hentz.

Two specimens, Six Mile Creek and Fall Creek.

*Synageles picata* Hentz.

One specimen.

#### EXPLANATION OF PLATES.

##### PLATE I.

Fig. 39, *Lycosa excitosa*; fig. 41, *Pardosa annulata*; fig. 42, *Pardosa venusta*; fig. 43, *Pardosa gracilis*; fig. 46, *Pirata montanoides*; fig. 47, *Pirata agilis*; fig. 48, *Pirata exigua*; fig. 50, *Pardosa gracilis*; fig. 51, *Micaria formicoides*; fig. 52, *Thargalia agilis*; fig. 53, *Thargalia perplexa*; fig. 54, *Thargalia fallax*; fig. 55, *Prosthesima rufula*; fig. 56, *Prosthesima frigida*; fig. 57, *Prosthesima blanda*; fig. 58, *Prosthesima immaculata*; fig. 59, *Gnaphosa humilis*; fig. 60, *Drassus humilis*; fig. 61, *Clubiona obesa*; fig. 62, *Clubiona tibialis*; fig. 63, *Clubiona crassipalpis*; fig. 64, *Clubiona pygmea*; fig. 65, *Clubiona abbotti*; fig. 66, *Clubiona lenta*; fig. 67, *Plurvolithus minutus*; fig. 68, *Agreca ornata*; fig. 70, *Plurvolithus palustris*; fig. 71, *Cybicus giganteus*; fig. 72, *Celotes fidelis*; fig. 74, *Celotes altilis*; fig. 76, *Cicurina creber*; fig. 77, *Cicurina placida*; fig. 78, *Dictyna foxii*; fig. 79, *Dictyna maxima*; fig. 81, *Dictyna decorata*; fig. 82, *Dictyna dubia*.

##### PLATE II.

Fig. 14, *Tmeticus obscurus*; fig. 17, *Tmeticus rusticus*; fig. 24, *Tmeticus minutus*; fig. 27, *Microneta minutissima*; fig. 28, *Linyphia variabilis*; fig. 29, *Diplostyla pallida*; fig. 30, *Lycosa similis*; fig. 32, *Philæus princeps*; fig. 33, *Dendryphantes flavipedes*; fig. 34, *Admestina wheeleri*; fig. 37, *Misumena foliata*; fig. 38, *Linyphia conferta*; fig. 39, *Philodromus minusculus*; fig. 40, *Philodromus exilis*; fig. 41, *Bathyphantes decorata*; fig. 45, *Bathyphantes tristis*; fig. 47, *Microneta palustris*; fig. 48, *Microneta luteola*; fig. 50, *Microneta complicata*; fig. 52, *Microneta gigantea*; fig. 53, *Microneta distincta*; fig. 54, *Ceratinella placida*; fig. 55, *Ceratinella formosa*; fig. 56, *Ceratinella annulipes*; fig. 57, *Ceratinella pygmea*; fig. 58, *Ceratinella morsa*; fig. 60, *Ceratinella minuta*; fig. 65, *Bathyphantes unimaculata*; fig. 67, *Xysticus lentus*.

## PLATE III.

Fig. 1, *Xysticus stomachosus*; fig. 3, *Xysticus feroculus*; fig. 4, *Xysticus brunneus*; fig. 5, *Xysticus crudelis*; fig. 6, *Xysticus transversus*; fig. 7, *Xysticus gulosus*; fig. 8, *Xysticus nervosus*; fig. 9, *Xysticus formosus*; fig. 10, *Xysticus quadrilineatus*; fig. 11, *Oxyptila georgiana*; fig. 12, *Oxyptila conspurcata*; fig. 13, *Coriarachne versicolor*; fig. 15, *Misumena rosea*; fig. 17, *Misumena foliata*; fig. 18, *Runcinia aleatorius*; fig. 19, *Philodromus pralustris*; fig. 20, *Philodromus signifer*; fig. 21, *Philodromus gracilis*; fig. 22, *Philodromus unicolor*; fig. 23, *Philodromus vulgaris*; fig. 24, *Philodromus ornatus*; fig. 25, *Philodromus placidus*; fig. 26, *Philodromus rufus*; fig. 35, *Lycosa rufiventris*; fig. 36, *Lycosa humilis*; fig. 37, *Lycosa crudelis*; fig. 40, *Lycosa oblonga*; fig. 44, *Pardosa mæsta*; fig. 45, *Pardosa obsoleta*; fig. 86, *Neophanes pallidus*; fig. 87, *Neophanes pallidus* variety; fig. 89, *Xysticus distinctus*.

## PLATE IV.

Fig. 1, *Lophocarenum tristis*; fig. 2, *Lophocarenum unimaculatum*; fig. 3, *Lophocarenum castaneum*; fig. 4, *Lophocarenum miniatum*; fig. 5, *Lophocarenum venustum*; fig. 6, *Lophocarenum parvum*; fig. 9, *Lophocarenum erigonoides*; fig. 8, *Lophocarenum crenatoideum*; fig. 10, *Lophocarenum formosum*; fig. 11, *Lophocarenum arvensis*; fig. 12, *Lophocarenum longior*; fig. 13, *Tmeticus unicorn*; fig. 15, *Tmeticus flaveolus*; fig. 16, *Tmeticus luxuosus*; fig. 18, *Tmeticus humilis*; fig. 19, *Tmeticus mæstus*; fig. 20, *Tmeticus debilis*; fig. 21, *Tmeticus palustris*; fig. 22, *Tmeticus distinctus*; fig. 23, *Tmeticus maculatus*; fig. 26, *Bathyphantes complicata*; fig. 29, *Dendryphantes ornatus*; fig. 49, *Marptusa rupicola*; fig. 60, *Ceratinella minuta*; fig. 69, *Prosthesis minima*; fig. 73, *Celotes longitarsus*; fig. 74, *Celotes attilis*; fig. 79, *Dictyna maxima*; fig. 81, *Dictyna decorata*; fig. 83, *Phidippus McCookii*; fig. 84, *Xysticus nervosus*.

## PLATE V.

Fig. 7, *Lophocarenum exiguum*; fig. 10, *Lophocarenum formosum*; fig. 27, *Phidippus minutus*; fig. 28, *Dendryphantes insignis*; fig. 29, *Dendryphantes ornatus*; fig. 30, *Dendryphantes exiguus*; fig. 31, *Icius formosus*, upper fig.; *Diplostyla alboventris*, lower fig.; fig. 32, *Icius hartii*; fig. 33, *Icius mæstus*; fig. 34, *Habrocestum latens*; fig. 35, *Cornicularia formosa*; fig. 36, *Cornicularia placida*; fig. 38, *Lycosa immaculata*; fig. 42, *Bathyphantes pallida*; fig. 43, *Theridium kentuckyense*; fig. 44, *Tmeticus gnarus*; fig. 46, *Microneta latens*; fig. 49, *Microneta flaveola*; fig. 51, *Microneta frontata*; fig. 58, *Ceratinella mæsta*; fig. 59, *Ceratinella bulbosa*; fig. 61, *Ceratinella similis*; fig. 63, *Ceratinopsis frontatus*; fig. 64, *Grammonota venusta*; fig. 66, *Bathyphantes inornata*; fig. 71, *Cybeus giganteus*; fig. 72, *Celotes fidelis*; fig. 85, *Philodromus minutus*; fig. 88, *Tetragnatha pallida*.